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THE FRUIT WORLD & "Market Grower"

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22 SEPT. 1941

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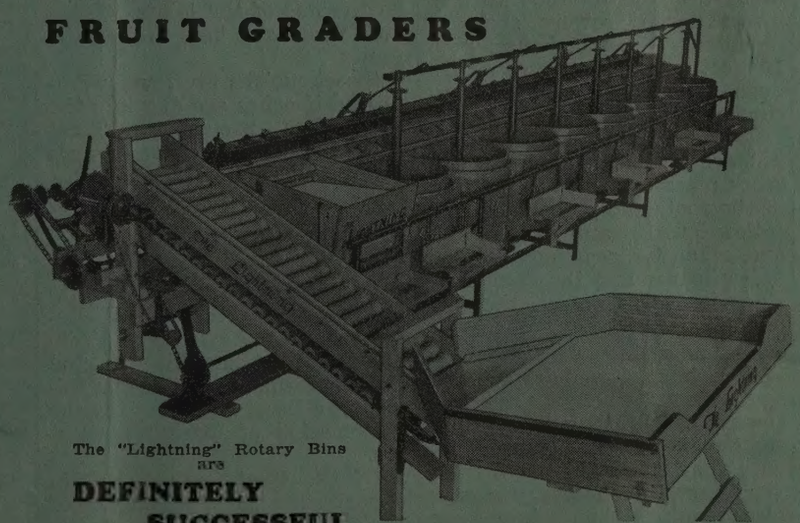

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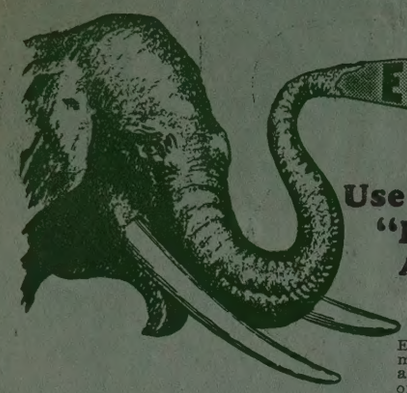

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The Market Grower

HOW TO GROW PUMPKINS AND SIMILAR MELONS.

THE following advice upon the growing of various members of the melon family comes from "South Western Times" (W.A.), and should be valuable to market growers.

Trombones, marrows, pumpkins, melons, squashes, and cucumbers are all members of one family. With slight modifications for the weaker growers as regards distances apart, all require the same general treatment, time of sowing, soils, and after cultivation.

All varieties of the melon family are heat lovers, and although early sowings under glass may at times prove successful, and crops produced a little earlier, none can be planted or sown in the open, until the weather and soils are warm.

The melon family requires good light rich and deep soil, adequately drained, and during their main period of growth (the very hot weather) abundance of moisture.

Sandy soil retains moisture below the surface much longer than the heavier soils, and, if deep, encourages a deep rooting. In such localities the hardier types, pie melons, pumpkins and melons, if sown early in the Spring before the excessive heat dries the surface soil, can be grown without any irrigation. The deep set roots procure enough moisture to grow the plants while the luxurious leaf growth shades the surface soil and prevents undue evaporation and overheating of the surface soil, resulting in burnt foliage.

There are several methods of preparing the ground. Some growers excavate round holes as for fruit trees, place a good layer of well-decayed manure at the bottom, and then fill up with the soil taken out, again heavily enriched with manure. When the soil subsides after watering, there is a slight depression, and in watering the hose is left to run until the hole is filled.

Others, again, prepare trenches on similar lines.

With soils on the heavy side, or in wet, low-lying districts where the drainage is deficient, the American system of hills will be found the best.

The whole soil is dressed with a heavy application of well-decayed manure, dug in as deep as possible, holes are then dug two feet square and 18 to 21 inches deep, and filled to the soil level with well-decayed stable or cow manure, and the soil excavated is heaped over in a low mound slightly convex at the surface.

The distance apart of these hills varies with the variety grown, large growers such as pumpkins, and trombones, 8 to 10 feet apart, marrows 6 ft., bush marrows, melons and cucumbers 4 to 5 feet.

Two to three plants in each hill are sufficient to produce a crop; more means overcrowding of the roots and poorer growth.

Sow 6 to 10 seeds in each hill, and, when the seedlings develop a few leaves and the danger of slugs is over, thin out the surplus plants.

The advantage of these hills is that they are well drained and are warmer when the seed is sown in early Spring. The young roots make for the manure, and, once they reach this, growth is very fast, much less water is also required than when sown on level soil.

Watering the melon family at all times should be by flooding, rather than by hosing or sprinkling. The idea is to place a volume of water at the lower roots, and unless exceptionally hot, one good flooding every seven or ten days is sufficient. During hot weather, however, the foliage should be hosed or sprinkled at intervals in the cool of the evening to cleanse the plants and keep red spider in check.

Vegetable marrows, pumpkins, squashes, trombones and cucumbers germinate very freely with warm and moist soil conditions. Watermelons are difficult when sown early, and if they take too long to show are very weak, and damp off readily.

By soaking the seeds over night in tepid water or sour milk, germination is hastened and much stronger plants are made. With later sowings, when the soil is very warm and hot weather prevails, this is not necessary, for they germinate in a few days.

When the melons start to run and the vines fill the intervening space, this should be kept loose and covered with mulch. Too often during hot spells all the vines on unwatered space get scalded and die back. In the case of large growers, such as pumpkins, it would pay to peg down some of the joints. These strike root and help to feed the fruits.

Sweet melons are greatly improved if ashes are dug into the soil when preparing. Treat these like cucumbers as regards water and shelter.

PEA MITE CONTROL.

Damage to plants by pea mite is reported to the N.S.W. Department of Agriculture from numerous districts this year, and the Department advises the following control measures for the information of market gardeners.

Of the treatments tested in experiments in the control of the mite in vegetable and flower crops the following was most effective: (1) Dusting with 1 lb. derris root powder mixed with 8 lbs. of a proprietary nicotine dust containing 2 per cent. nicotine as alkaloid (equivalent to 5 per cent. nicotine sulphate); (2) spraying with 6 fl. ozs. emulsified white oil plus 5 gallons water, plus nicotine sulphate at 1:600.

Where there is any likelihood of foliage burn in very delicate plants, such as lettuce or seedlings, the derris nicotine dust should be used.

Treatments embodying nicotine should be applied in the warmer part of a reasonably warm day.

HOW POTATO RING ROT IS SPREAD.

ACCORDING to J. B. Kendrick, of the Plant Pathology Division, and C. E. Scott, of the Agricultural Extension Service at the University of California, U.S.A., cutting of seed pieces with a contaminated knife may cause losses of as much as 47 per cent. in potato yields due to bacterial ring rot.

Ring rot, a seed-borne disease, spreads largely, if not entirely, while seed potatoes are being prepared for planting. It also opens the way for infection of the crop with soft rot, a disease now presenting a serious problem in California potato areas. During the past season field tests were carried on by the College of Agriculture to determine at what points between storage and planting the infection is spread.

Reporting on these tests, Kendrick and Scott announced the cutting knife was found to be the most active agent in spreading the disease to healthy seed. A knife contaminated by cutting diseased pieces, they said, may infect twenty-four succeeding healthy potatoes, and one infected potato in twenty-five results in 90 to 100 per cent. of the hills becoming diseased.

The ring rot organism is also spread, the tests showed, by use of picker type planters whose small spikes will carry it from diseased to healthy seed, and by contact between infected and healthy seed, or whole potatoes, in bags or storage bins. Potatoes need not be wounded or cut for the organisms to enter them.

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PERSONAL.

Mr. H. D. Howie, O.B.E.: Congratulations to Mr. Herbert Douglas Howie, Chairman of the Board of Management of the Australian Dried Fruits Association, on being honored with the Order of the British Empire. Mr. Howie has faithfully served the Australian Dried Fruits industry for many years. When problems arose in the distribution of the crops due to the heavy plantings at the close of the last war, Mr. Howie was one of the first to see the necessity for legislation to control a situation which had got quite out of hand. The success of that legislation, both Federal and in the several States is seen in a now stabilised industry. Mr. Howie is a large fruitgrower of Renmark. Among his many activities, he is Chairman of the Renmark Fruitgrowers' Co-operative Ltd., and grower member of the Commonwealth Dried Fruits Board.

:: :: ::

Mr. Walter H. P. Edwards has retired by effluxion of time from his position of Senior Inspector N.S.W. Department of Agriculture. Mr. Edwards was esteemed by all for his efficiency, firmness and fairness. He earned the respect and goodwill of all with whom he came into contact.

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Brig.-General J. Heane, C.B., C.M.G., D.S.O., V.D., who has been President of the Fruitgrowers' Federation for 19 years, did not stand for election in 1941, and Mr. F. B. Mackenzie was elected in his place. General Heane proved himself a capable Chairman at conferences where the exercise of patience and tact was essential. He rendered good service to the fruit industry, and his retirement was generally regretted. Mr. Mackenzie has proved himself a worthy leader, and all good wishes are extended to him in the important position which he now holds.

:: :: ::

Hon. H. L. Anthony, M.P., has been transferred from his position as Assistant Minister for Commerce to the position of Minister for Transport.

OBITUARY.

Deep sympathy is extended to the relatives of the late **Mr. and Mrs. John Tully,** of Doncaster, Vic. Last month we announced the death of Mr. Tully and then within a few weeks Mrs. Tully also passed away, leaving a grown-up family, and wide circle of friends to mourn their loss.

:: :: ::

Mr. A. H. Walker, fruit merchant of Sydney, N.S.W., suffered a bereavement in the death of his wife on June 17. There are two children, Edna and Russell. Sympathy is extended to relatives and friends.

DEATH OF MR. W. J. ALLEN.

Mr. W. J. Allen, Fruit Expert and Irrigationist in the N.S.W. Department of Agriculture from 1897 until his retirement in 1927, died on May 9 at the age of 80.

The late Mr. Allen was born in Canada, where he obtained much of his knowledge of farming and fruit culture, and subsequently went to California, where he spent about ten years on a large orchard ranch at Riverside.

In 1897, he joined the N.S.W. Department of Agriculture in this State as Fruit Expert, in which position he travelled widely both here and abroad, investigating problems connected with irrigation and orchard practice. In 1906, he visited the fruit districts of California, and again in 1913 he toured California, Mexico, Canada, the Eastern States of America, Great Britain, France, Italy, Sicily and Egypt. He was for a number of years connected actively with irrigation matters on the Murrumbidgee Irrigation Areas of N.S.W.

The late Mr. Allen was a regular representative of the N.S.W. Department of Agriculture at interstate conferences of fruitgrowers.

News has been received of the death of **Mr. A. U. Martin,** of Mt. Barker, W.A., on June 19.

The sympathy of his very wide range of friends in the industry throughout Australia

will be extended to his brother, Mr. J. McN. Martin, President of the W.A. Fruitgrowers' Association and Chairman of Directors of the Mt. Barker Co-operative Society, who was his partner in the Mt. Barker Estate.

The late Mr. A. U. Martin, in company with Mr. H. W. Soothill, studied fruit marketing systems throughout Australia in 1933. He served in the last war.

At the time of his death, and for some years previously, he was a director of Mt. Barker Co-operative Ltd.

Trees for Wind Breaks

A profitable use for quick-growing and shady trees is for wind breaks, and Mr. K. V. M. Ferguson, M.A., B.Sc., of the Forests Commission, writes as follows in the "Victorian Journal of Agriculture":—

Landholders are becoming more conscious of the value of trees for affording shade and shelter to stock, crops and buildings. Wind breaks are an asset on any farm, especially on flat, exposed plain country, and also in wet and cold central districts.

Livestock, whether it be sheep, lambs, cattle or horses, benefit by protection from wind both in Summer and Winter. On a hot Summer day, animals seek the shade of trees for protection from the blazing sun, and on a bleak Winter's day it is common to see cattle and other farm animals huddled together for warmth where there is no shelter from the wind. The farmer who provides for the comfort of his stock is amply rewarded by healthy, well-conditioned animals, by increased breeding percentages, and by decreased losses through exposure, especially in the lambing and shearing seasons in the case of sheep.

As far as possible, a wind break should be located at right angles to the prevailing wind direction. A belt in the shape of an L gives protection from wind from any quarter.

In selecting species for shelter planting, it should be kept in mind that the trees should be wind-firm, evergreen, suitable for the soil and climatic conditions of the locality, and preferably of a low-branching habit, particularly if they are to be grown in a single or double row. Trees should be planted in two or three rows, or in the form of a small plantation. A three-row windbreak is very effective, the trees of the two outer rows alternating with those in the centre. The distance between rows will depend on the habit of growth of the species.

In Victoria, a wider range of species is available for planting in the moist, cool localities than in warm, dry, inland districts. Some of the most reliable which could be used as the basis of a farm tree-planting scheme are the following:—

The various Cypresses are ideal shelter trees which thrive in all parts of the State except in the warm northern and north-western districts. They are characterised by a dense, leafy crown and spreading branches persisting almost to ground level. The Monterey Cypress (Cupressus macrocarpa), planted 15-20 feet apart, provides excellent shelter, as also does Lambert's Cypress (C. Lambertiana) at an espacement of 20-30 feet. Arizona Cypress (C. arizonica) is somewhat more resistant to dry conditions than the others.

The Insignis Pine (Pinus radiata) thrives best in cool hill or lowland districts where the rainfall exceeds 25 inches per annum. In coastal soils, Maritime Pine (Pinus pinaster) is to be preferred. Mahogany Gum (Eucalyptus botryoides) is one of the best broad-leaved species for planting on moist lowland soils.

In the warmer and drier inland districts of the Mallee, Wimmera, and northern and western plains, Sugar Gum (E. Cladocalyx) is one of the most reliable shelter trees. A dwarf variety, with low-branching habit, is now cultivated, and a triple wind break comprising a centre row of the tall-type tree with a row of the bushy variety on either side provides very effective shelter. In the very dry and very warm inland localities, where drought is likely to be experienced and water is scarce, the Pepper Tree (Schinus molle) is invaluable.

The majority of young plants may be either eaten by stock or so knocked about if they are not protected by fences that they eventually die. To avoid this, the young trees must be protected, preferably by means of a stock-proof fence.

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APPLE AND PEAR ACQUISITION

Evidence Before Federal Parliamentary Committee.

NEED for the acquisition scheme was emphasised by witnesses at Hobart before the Federal Parliamentary Committee on the Apple and Pear Acquisition Scheme.

Witnesses included the Minister for Agriculture (Mr. D'Alton), Mr. Plummer, M.H.A., and the Chairman of the State Fruit Board (Mr. J. R. Abel).

Mr. D'Alton made a detailed survey of the industry, and among others recommended the continuation of compensation payments to growers on areas which are retained for a period of at least four years on a similar basis to the present acquisition scheme.

Mr. Plummer said that with the object of economising in material and labor to assist the producer, he thought consideration should be given to the advisability of allowing growers to prevent the unwanted or unmarketable varieties from being brought to maturity.

:: ::

Strong support for the retention of the acquisition scheme was tendered in evidence at Huonville and Cygnet by orchardists of the Huon districts. Growers stated that the scheme was essential to prevent ruin and chaos. Acquisition was preferable to a direct grant and independent marketing. During the war, reworking should be proceeded with and thus raise the standard of production.

Messrs. G. C. Frankcomb (Warden of the Huon Municipality), B. A. Watson (Castle Forbes Bay), T. A. Frankcomb, and T. Burnaby (Lymington), said the acquisition scheme was essential for Tasmania; growers could not carry on without it.

Mr. R. H. Thompson (Huonville), while admitting that some form of assistance by the Federal Government was necessary, strongly criticised the administration, in that the best method and period had not been adopted for the marketing of the crop. Because of varietal and soil differences, the growers themselves were in the best position to decide these matters. Losses had been incurred through cool-storing unsuitable varieties, and leaving fruit on the trees too long. If the present scheme was considered too expensive, 5,000,000 bushels should be acquired and destroyed.

Mr. V. J. Skinner, fruit evaporator, Huonville, said that about 500,000 bushels of Apples had been dried this season in the Huon district. The price was about the same as last year.

Mr. F. Cole (Grove) stated that growers would have been bankrupt but for the scheme; growers, however, were the best judges as to when the fruit was ready to pick.

Mr. W. R. Yeates, journalist, Franklin, submitted that the Government should pay 2/- a case for the 4,000,000 cases which should be prevented from coming on to the market, each State to decide on the varieties prohibited. For interstate fruit there should be only extra fancy and fancy, the balance to be used for drying and by-products.

Mr. L. T. Barwick, Warden, of Cygnet, urged the continuance of acquisition; even if three mainland States wanted to be left out of the scheme, Tasmania and W.A. should not be sacrificed. Huon fruitgrowers had built up an important primary industry which supported nearly 15,000 persons.

:: ::

The Committee proceeded to Geeveston, and Messrs. Edward Burgess, orchardist and Warden of the Municipality of Esperence, Geeveston; T. G. Thomson, Geeveston; H. A. Thiessen, Geeveston; G. K. Geeves, Geeveston; A. Dickson, Port Huon; G. D. Calvert, Waterloo, and W. E. Britcliffe, Geeveston, orchardists, were called and examined.

Mr. E. Burgess was in favor of acquisition, but considered present groupings of the varieties unfair to the Tasmanian growers. He stated that the scheme could be improved by planning ahead, say for two years, or for the duration of the war.

That Local Committees in the various districts should be appointed, to co-operate with the Board, was the opinion of Mr. T. C. Thomson and Mr. G. K. Geeves.

Mr. H. A. Thiessen considered the acquisition scheme imperative for Tasmania, but under the present working, payments had been too slow.

Mr. A. Dickson said that packing and storing was of a higher standard than before acquisition, and that although there was waste of fruit in the cool store last year, it was no more than usual. Supervision over the standard of fruit has been improved this year, and the quality of the fruit is better.

:: ::

Mr. A. T. Lade, farmer and grazier, of Devonport, recorded his emphatic protest against the continuance of the acquisition scheme as now operating. He suggested that the scheme be given a fair trial, but the Government should take away the restrictions now imposed on the sale of Apples and Pears. When people could not get the cheaper lines of fruit they became antagonised and did not buy at all. He considered that if the prices were reasonable, the people in Australia could consume the whole of the Apples grown and that a reasonable price at the orchard for good fruit would be from 2/- to 3/- a case.

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On May 26, evidence was taken at Melbourne. There were present: Mr. Perkins, Chairman; Senators Fraser and McLachlan; Messrs. Bell, Frost, Pollard and Wilson.

Mr. C. E. Isaac, M.L.C., residing at Dandenong, appeared as a representative of the people in his electorate affected by the acquisition scheme. They were the orchardists who considered they were benefited by it, and those who considered they were injured by it; also the consumers of the fruit, and the taxpayers in general. Mr. Isaac stated that the basis of any war-time control should be "equality of sacrifice." But some orchardists who have been accustomed to grow mainly for export appear to benefit by acquisition, and some who have been accustomed to grow mainly for home consumption appear to be injured by acquisition. He strongly recommended a conference between representatives of the Government and the growers—both metropolitan and country—with a view to solving the problem by co-operation.

Mrs. E. M. Serpell, executive member of the Housewives' Association of Victoria, and Acting-Secretary of the Fruit Growers and Primary Producers' Defence League, residing at Doncaster, was called and examined.

Mrs. Serpell stated that the Victorian membership of the Defence League is about 700, and its object is to bring about a better state of affairs in the fruit trade. She criticised the Board's expenditure on an advertisement in the Melbourne press on Cox's Orange Pippins, and stated that the sales of Apples have diminished because of the poorer quality of fruit coming on to the market. Mrs. Serpell stated that the Defence League has not co-operated with the Board in any way because it did not approve of the system. She considered that the growers who are satisfied with the scheme should continue under it, but those who are dissatisfied and are being ruined by it, should be free to sell their fruit on the market.

Mr. W. M. Carne, of the Department of Commerce, then gave evidence regarding crop measurement and fruit inspection under acquisition.

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APPLE AND PEAR ACQUISITION—(Continued).

Mr. E. I. Lawford, orchardist and managing director of Lawford Fruit Exchange Pty. Ltd., Doncaster, gave evidence of his loss on the first year of acquisition, compared with his profit on previous year's trading.

He stated that since the acquisition scheme had operated, all distributing activities of Lawford Fruit Exchange Pty. Ltd. have ceased, and with this the outlet for Lawford and Zerbe's produce. He stated that he did not think other growers throughout Victoria have been affected to the same extent as his firm because very few are in a similar position. He stated that the best method of control is that some of the fruit should be acquired from those States which have been most dependent on exports, but that Victoria could look after itself.

J. W. Barker, merchant, of Mordialloc, stated in his evidence that he did not think Mr. Mills could properly represent the exporters at the same time as he represented Australia. He claimed that the Chairman should not be the representative of any State.

The Committee adjourned at 4 p.m. on May 26.

Continuing its inquiry into the operations and administration of the Australian Apple and Pear Board, the Federal Parliamentary Committee during June proceeded to W.A., where they visited Perth, Albany, Mt. Barker, Bridgetown and Donnybrook, then resuming in Perth.

The Committee comprises Mr. J. A. Perkins, M.H.R. (chairman), Senator J. M. Fraser (W.A.), Sir George Bell, M.H.R. (Tas.), and Messrs. C. W. Frost (Tas.), R. T. Pollard (Vic.), and A. Wilson (Vic.), Ms.H.R., and Mr. R. A. Broinowski, Secretary.

The Committee expressed regret that owing to the short time at its disposal, due to the fact that the W.A. visit was fitted in between adjournment of Parliament, they would be unable to visit every fruitgrowing centre.

Considerable evidence was given in Perth by George Charles Parke, deputy chairman of the W.A. Apple and Pear Committee. Mr. Parke said that after personal contact with hundreds of growers, he believed that 90 per cent. favored acquisition and had full confidence in the Board. Seven per cent. were critical either through lack of knowledge or through personal loss, but even these admitted that some control was necessary.

Witness was an orchardist for 25 years. He stated that the Committee had done its best to protect the public and had never used its powers to boost prices. The use of secondhand cases was opposed owing to the danger of introducing fruit fly into clean districts. The Committee's aim was to absorb the maximum amount of fruit at a price reasonable to both the consumer and the grower. Regarding the distribution of Apples to school children for eating while at school, and on their way home, witness said the problem was the cost of packing and transporting the fruit. He considered the cost of getting the fruit from the orchards should be borne by the Education Department.

The President of the Labor Women's Organisation (Mrs. Irene Mary Kent) expressed the opinion that there should be a woman on the Apple and Pear Committee "because they usually get down to tin tacks." Witness suggested a central depot in the city and the large suburbs, where Apples could be obtained in small packs of a few pounds. Trucks might also call regularly each week with quarter-case lots. She thought that difficulties of both growers and consumers would be met by lower prices.

Walter Charles Temby, representing 200 growers in the Kalamunda and Pickering Brook districts, said that present returns were below the costs of production. He suggested the payment of a uniform price of 4/6 a bushel for fancy grades and £5 a ton for "plain" Apples. He also considered the price to the public too high at present in some districts.

Other evidence was given by Denis John Sutcliffe (on behalf of the Fruit and Produce Auctioneers' Association); R. Kliemke, orchardist, of Parkerville, who suggested curtailing crops by stripping trees on an acreage basis; Ivan Frank Emms and J. Brindle, both of Parkerville (on behalf of 45 members of the Eastern Hills Fruitgrowers' Association); L. B. Howattson, of Stoneville, who was satisfied with the present scheme; H. C. Merry, chartered accountant and secretary of the W.A. Fruit Organisation Board, and Reginald Roy Long, managing director of Tropical Traders Ltd.

The last-mentioned witness said the Apple and Pear Organisation Act created a body on which growers were to have such preponderance that they could govern and own the industry. In practice, however, the number of growers' representatives were merchants of the W.A. Board, instead of including two growers and one merchant, comprised two merchants and one grower.

The whole export trade had been handed over to a virtual monopoly of eight firms in Australia, and six counterparts in England. Growers could only ship at the pleasure of the merchant owning shipping space, and the merchant could only secure space at pleasure of the shippers' committee.

Complete satisfaction with the operations of the present scheme was expressed by all witnesses examined before the Committee at Mt. Barker.

The first witness called was Thomas Glen Sounness, orchardist, of Mt. Barker, who said that the fruit was of a higher standard than previously available to the buying public. Regarding the benefit to the grower, he stated that the general opinion was that the scheme was satisfactory.

James McNeil Martin, President of the W.A. Fruitgrowers' Association, handed the Committee a long statement from his Association. Asked if his opinion was the same as that of the Association, witness said it was. He said that the grower was not as well off, financially, as prior to the war, but he considered that chaos would have resulted had there been no acquisition. He declared that, with regard to increasing consumption, the State already headed the world for fruit consumed per head of population, and he did not think consumption in W.A. could be increased. He thought that the sale of fruit in the Eastern States could be materially increased.

The Bridgetown Fruitgrowers' Association met before the Committee proceeded to that centre, and appointed three delegates to give evidence in favor of the Apple and Pear scheme.

By a decision of the Albany Fruitgrowers' Association the case for that body was presented by the Chairman, Mr. L. L. Hill, M.L.A., and the Secretary, Mr. W. Gibb.

Mr. Hill stated that the fruitgrowing industry in W.A. was far more dependent upon the export trade than other States. It said it was obvious that the very existence of the industry in this part of the State hinged on the continuation of the acquisition scheme or a scheme having similar results. Assistance now given by the Government to growers would be repaid with interest when the war ceased.

Cross-examined, witness said that more fruit was being consumed than before the scheme operated.

The Parliamentary Committee left Perth on June 14, for Canberra.

Letters to the Editor

Apple and Pear Board Opposed

To the Editor, "Fruit World."
Sir,

I read with interest an article written by your correspondent from Tasmania on page 28 of the June issue regarding the Apple and Pear Board.

He states that the Acquisition Committee is paying out promptly. They are not doing that with us; we have usually to wait a month, then there are omissions from the account for which we have to write again and again.

There is a very strong feeling in the Orange district against the Board, as also in Bathurst. It is regarded as a ruinous arrangement. When 300 growers condemn the scheme at a meeting in Orange they have very good reasons. Your correspondent states "he cannot believe the average grower in N.S.W. ever realised a price equal to the prices paid by the Government under the acquisition plan." I am afraid he does not know the facts then.

We in the Bathurst and Orange districts have never received before the low prices paid by the Acquisition Committee. I have lived here for 18 years and have kept records of the prices I received. For instance, the last season before the acquisition scheme started I sold my Granny Smith Apples, 180 to 80 size, from about 12/- to 18/-; we now receive 7/5. The Rome Beauty Apples I sold 287 cases to a local dealer for 8/6 a case for the 2½ and larger sizes; I now receive 6/5. I had no commission or cool storage to pay out of the 8/6.

I sent 370 fine colored and eating quality Jonathan to the market; they were passed by the local inspectors as Fancy. But when they reached Sydney they were degraded by some inspector to "Good" grade, except 60 cases, and I have only averaged under 4/- a case for these.

Evidently your correspondent does not realise that in the Bathurst district we have a low production per acre and a high cost in controlling the Codling Moth. And if it was not for the fact that our Apples sell at top market prices we could not carry on.

This season, which was better than the two previous drought years, I packed 2,432 cases from 2,281 trees. If we could receive the fair market value for our Apples we could carry on, but when we are reduced to glut prices by the Apple and Pear Board, and paid "Good" grade prices for carefully selected Fancy grade, is it any wonder that we are protesting about the matter.

We cannot see the justice of the Apple and Pear Board taking the profits made on our crops, and leaving us to run overdrafts, so that they can pay Tasmanian growers a higher rate than market prices for their unwanted varieties such as Cleopatra and Sturmer Apples. Why could not Tasmanian growers be assisted under the Necessitous Farmers Act?

How can Orange growers carry on at under 8/- a case for Delicious for which by cold storing they could receive £1 a case? Last season they were sold at higher rates than these.

Yours faithfully,
H. K. CHAPMAN.
Kelso, N.S.W., 18/6/41.

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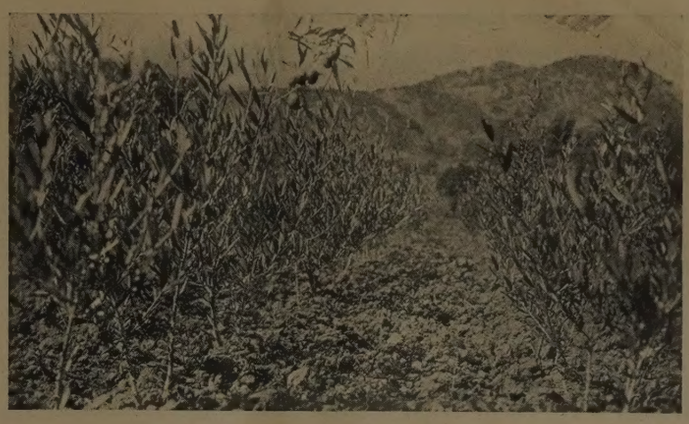

Beds of budded Olives at the nursery of Mr. L. J. Wicks, Highbury East, S.A. The fruit in the top centre foreground are Verdale Olives which are splendid for pickling, good for oil, and a regular and heavy cropper.

Acquisition Plan Supported

To the Editor, "Fruit World."
Sir,

At the present time it appears to be essential for the growers to decide whether they believe in the **principle** of acquisition.

Confusion has been caused by growers complaining of some one detail, and on account of that condemned the whole scheme (though both those responsible for the scheme and those responsible for its carrying out ought to be willing to invite and welcome reasonable criticism and endeavour to rectify any defects).

In any consideration of the position it is essential to face one initial fact, that now "export" is out of the question, and in a normal season the equivalent of, say, 5 or 6 million cases will be on the trees, it is simply a case of refusing to face facts to talk about growers being left to market their own fruit (as regards Victoria, in the Victoria Market) in their usual way. At a poll, arranged after some regretably disorderly meetings by the Frankston and Hastings Council, 137 growers voted for acquisition (with removal of present anomalies), and 55 against.

Unfortunately those in opposition, as is often the case, have worked harder for their side and contributed more to the "press," while those in favor of acquisition have (till just lately anyway) failed to express their support, or express any thanks.

Whereas (quite apart from whether one agrees with the present scheme or not) it must be admitted that the Commonwealth Government tried to help the growers in their difficulties, and have devoted a large sum of money to that purpose. This providing of money raises a very serious point. We talk of "for the duration of the war," but whenever the war ends it would appear to be probable that it will be a long time before any export of Apples and Pears (the latter at former prices largely a luxury trade) starts again. Life "on the land" is healthy, and fruit an excellent and necessary part of the nation's diet, but how all the fruitgrowers are to have a sufficient (though probably restricted) income and the Government not have to provide too large a sum of money is a question which requires the earnest consideration of every public-spirited orchardist.

Yours, etc.,
"ORCHARDIST."
Tyabb, Vic., 19/6/41.

Tasmanian Growers' Views

The Editor, "The Fruit World."
Sir,

As you invite correspondence regarding the fruit acquisition scheme, you might be interested in the views of some of the largest of the Cygnet packers and exporters of Apples. I was speaking only yesterday to a gentleman who is by far the largest packer and Apple exporter in the Cygnet district.

He is in complete agreement with the scheme put forward by Mr. A. Weymark on page 19 of the May "Fruit World," with which also I am in complete agreement. That is, that the Government should buy the export surplus at 2/6 or a negotiated price per bushel, of about 4½ million bushels not smaller than 2¼ inches diameter, processing quality (not necessarily Fancy grade). Seeing that the failure to ship Apples in great quantities overseas is a sort of disease the fruit industry is suffering from, why spread this disease? Why not localise it, and let as much trade such as the interstate and internal trades of each State alone as much as possible? Apples suitable for both overseas and interstate markets, such as Granny Smith and Cleos., would have to be considered as one of the detail problems, but I think, in my own view as an independent grower and packer, that in the long run the industry will have to use its own arms and hands to a large extent to keep its head above water, which is, after all, the law of nature that every true fruitgrower knows is the only correct method in the finish.

I wish your paper every success, and I think you are on the right lines with inviting all the correspondence and airing all the views of capable fruitgrowers which are available and obtainable.

I am, Yours faithfully,
JAMES CLARK.
Bullock Point, via Cygnet, Tasmania, 21/6/41.

Letters to the Editor—*Continued*

APPLE AND PEAR ACQUISITION SCHEME

Comments from South Australia

The Editor, "Fruit World."
Sir,

Adverse criticism of the present scheme has frequently been met with the assumption that its abandonment would result in chaos and complete collapse of local markets. It is generally admitted that some control is essential, but to render it more equitable and avoid the shocking waste of sound fruit, the scheme could be considerably modified, or an alternative plan devised for dealing with the critical situation of the Apple and Pear industry.

The centralising policy of marketing boards in our two large cities, by price-fixing and complicated regulations without regard to the great diversity of interests and selling conditions in all parts of the Commonwealth has caused much discussion.

Much of the opposition amongst growers and traders could no doubt be overcome by the adoption of a plan based on voluntary co-operation, financed and assisted by both Federal and State Governments.

In 1918, owing to the submarine menace, our export trade, as at present, was cut off. South Australian growers, with a heavy crop of Apples in sight, were faced with the prospect of a glutted local market and ruinous prices. The State Government then took the matter in hand, and established a voluntary pool under the management of the Produce Department. It was well supported by growers, who received about 3/6 per bushel nett for their fruit, equivalent under present conditions to 5/-. The fruit was sold for the most part through the ordinary channels of distribution, and as sales were by commission, the public were enabled to buy all they required at reasonable prices, and the whole crop was cleared without any waste.

A plan on similar lines, under the control of the Federal Government, but administered separately by each State, deserves, I think, serious consideration. One objection which may be urged against a voluntary pool is that it would not prevent competition with outsiders. This, however, could be obviated to a great extent by the following inducements for growers to contribute at least a large proportion of their Fancy grade Apples and Pears to the pool. Only fruit of approved quality delivered to the pool should be eligible for any advance, which should cover cost of production. The pool should have preference in the allocation of any shipping space that may be available, and of cool storage. It should also receive preference in supplying Government and charitable institutions, military canteens, etc. In outback districts where fruit is not easily obtainable, railway stations could be used as agencies for orders and deliveries. All pool fruit to be sold under a well-advertised brand.

The voluntary system combines the advantages of organised marketing with individual liberty. The grower can retain his trade connections without official interference; at the same time consumers can buy all they require according to their means at prices adjusted to quality.

Unlike the compulsory scheme with a vast number of regulations and an expensive staff to enforce them, a voluntary pool could be operated with economy and should return a fair profit to its supporters. One of the best organised of our primary industries is that of dried fruit, and here better results have been obtained by voluntary agreement than when compulsion was attempted, and after costly litigation was found to be unconstitutional. Independent growers and merchants are now in full harmony with the A.D.F.A.

One of the great drawbacks to the fruit industry has been the wide margin between the selling and buying prices. In the past this has been due in many cases to profiteering, but at present to expensive administration by marketing boards. I believe that the local market, if properly exploited, can absorb the whole of the Australian Apple and Pear crop, but the cost of marketing and distribution will have to be reduced so that the bulk can be sold at reasonable prices. An extensive scheme of educational propaganda is also essential. In America, where advertising is recognised as a highly skilled art, the consumption of some varieties of fruit has been increased from 50 to 100 per cent.

One of the greatest authorities on diet, Sir W. Arbuthnot Lane, has stated in effect that many diseases can be prevented by the adoption of a more rational diet, consisting largely of fruit and vegetables.

For this reason alone all the financial assistance that the Federal Government can give towards increasing local consumption of fruit would be justified by the improved health and efficiency of the community.

I am, Sir,
(Signed) A. B. ROBIN.
Nuriootpa, S.A., 1/7/41.

APPLE AND PEAR SCHEME VALID.

By a majority of three to one the High Court, in a judgment last week, held that the Apple and Pear Acquisition Regulations made under the National Security Act are valid. Acting Chief Justice (Sir George Rich), Mr. Justice Dixon, and Mr. Justice McTiernan comprised the majority. Mr. Justice Starke dissented.

The matter came before the Court by way of an appeal. Geoffrey Basil Andrews, of Wantirna, orchardist, had been fined £3, with £2 costs, at a lower Court on a charge of having moved 27 cases of Apples acquired by the Commonwealth. He appealed to the Full Court of the High Court on the ground that the Regulations were beyond the powers which the Act purported to confer upon the Governor-General in Council.

The Acting Chief Justice said that it was plain the growers received just compensation, probably at the expense of consolidated revenue. There was a sufficient compliance of the terms of Section 51 of the Constitution.

Mr. Justice Dixon said the Act fully justified the Regulations. All objections to the validity of the Regulations failed.

Mr. Justice Starke, in a dissenting judgment, said the provisions of the Constitution precluded the Commonwealth from acquiring any property from a person other than on just terms. Compensation had been provided in the present case, but the question was whether the terms were just.

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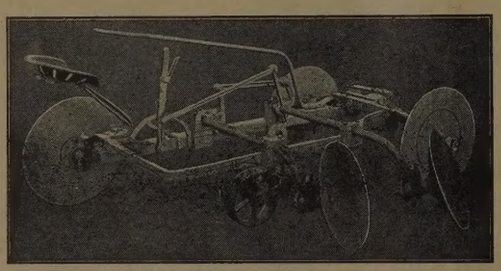

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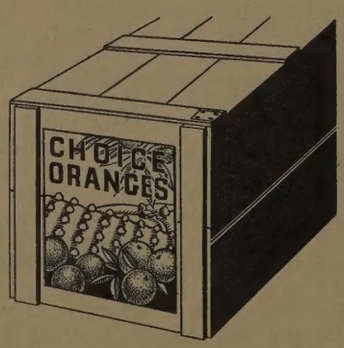

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New South Wales

The Murrumbidgee Irrigation Area

(By Our Local Correspondent.)

Seasonal Conditions: Weather generally has been rather severe, with heavy frosts and cold days. Rainfall has been light and, although this is not serious for the fruit farmers and other irrigationists, it is disastrous for the surrounding dry areas.

Citrus Crops: Medium crops of Navel and Valencia Oranges are showing. Grapefruit is fairly heavy, and good crops of Lemons are general.

Citrus Export: Although not on the same scale as last year, export of citrus fruit to New Zealand is continuing. It now appears that the monthly quota for the Area is about four thousand cases.

Elimination of Flooding Danger: It is reported from Merungle Hill, in the Leeton portion of the Area, that the fear of flooding by heavy rains has been removed by the ample reconstruction of drainage channels now almost completed by the Irrigation Commission.

Soil Nitrogen and Cover Crops: Mention has been made from time to time of the revolutionary methods of irrigation and cultivation carried out by Mr. Ern. Ebert, farm 1781, Ballingal, Griffith. Recent results of growing subterranean clover on this farm, follow:

During last November, growers inspected a block of Peaches cover cropped with this clover. The leaves of the trees were tinged with yellow, giving a rather unhealthy appearance by comparison with trees of other blocks on the farm. Because of this some have gained the impression that such a cover crop is harmful to Peaches and is an undesirable orchard practice. Further developments, however, do not support this conclusion.

At that time it was apparent that the rather unhealthy appearance of the trees was due to a temporary shortage of soil nitrogen, partly associated with conditions during the previous Summer before planting the clover. An explanation was given on those lines and subsequent events have confirmed it. Much interest is now being taken in new orchard cover crop practices, and extensive experiments are being conducted to find their use in overcoming some long standing M.I.A. problems. It is obviously undesirable that wrong impressions be given regarding their value before adequate trials have been made, and at a recent meeting of the Irrigation Research Extension Committee it was decided that this statement should be issued discussing the condition of these trees in greater detail. The following account of Mr. Ebert's experience may also be a helpful guide to the use of sulphate of ammonia under cover crop conditions.

Dangerous Conditions for Nitrogen Shortage.

Experiments show that although nitrogen is added by green manures and soil organisms, it may still be insufficient for larger trees. Two points need emphasis:—

1. Nitrogen added by subterranean clover, tick beans or a similar crop is made available only slowly after turning in.

2. Nitrogen forming organisms in the soil only get moving fairly late in Spring.

Thus, even under the best natural conditions for nitrogen formation, shortages may occur requiring the addition of nitrogenous fertilizers like ammonium sulphate. This would apply particularly to Spring and early Summer conditions when active tree growth may outpace the nitrogen supply of the soil.

With regard to Mr. Ebert's Peaches, the subterranean clover, still growing actively in November, was probably itself making a demand on the soil nitrogen supply at a time of great tree activity. It was a heavy stand of clover, but the large amount of nitrogen it contained would not be available to the tree until the crop was ploughed in or had died off, that is, from mid-Summer onwards. Compared with the slightly yellow color of Peach foliage on this subterranean clover block, an adjoining block of ploughed in early in Spring, was green and healthy.

This, however, was not the whole story. A second subterranean clover block, with healthy green trees, adjoined the yellow block we have been considering. Obviously another factor operated to reduce the nitrogen content on the yellowed block, and an appreciation of this will have particular importance to the precautions which must be taken when a non-legume cover crop of cereals, grasses or weeds has been turned in. In the previous Summer both subterranean clover blocks had heavy cereal cover crops.

Vineyards in the Murrumbidgee Irrigation Areas.

The difference between them was that in the case of the healthy block, 1 lb. per tree of sulphate of ammonia had been applied when planting the green manure crop in the previous Summer. None had been applied in the yellowed block since the previous Spring. Emphasis is needed on this third point—

3. Turning in a non-legume may lead to a temporary, but serious, nitrogen deficiency. Sulphate of ammonia should be applied to correct this.

It is now well established that the explanation of this relates to the particular needs of the decay organisms in breaking down organic matter in the soil. To work properly, the organisms must have immediately available to them a certain minimum amount of nitrogen. If the cover crop does not contain this amount, the organisms take it direct from the soil, leaving less nitrogen available to the tree. It so happens that most non-legumes, especially when mature, do not contain this minimum amount. Practically all legumes do, and so enable the decay bacteria and moulds to get all the nitrogen they want in the legume cover crops, making no demands on the soil. It is true that in both cases nitrogen taken up by the organisms is released when they die but in the case of non-leguminous cover crops or weeds this may be only after severe damage has been done to the tree or its productivity.

Watch Soil Nitrogen Next Spring.

Last Summer, many growers allowed plentiful weed growth. This may cause little harm, may in fact be beneficial, provided soil moisture or nitrogen was not seriously depleted. However, if non-leguminous crops or weeds have been turned in this Autumn a watch should be kept next Spring for early signs of nitrogen deficiency, usually first detected by a yellow tinge in the leaves. If necessary, the usual dressings of sulphate of ammonia should be increased.

Rather than allow unrestricted Summer weed growth, consideration is now being given to growing some suitable legume. The use of a Winter cover crop, like tick beans, is already an established practice of proven value, but the use of Summer or semi-permanent cover crops is still partly in the experimental stage. The C.S.I.R. Research Station, Griffith, is conducting detailed experiments on the effects of various orchard cover crops on the soil and tree, and the necessary changes in irrigation and other farm practices involved. These experiments are being continued on settlers' farms to cover a full range of soil conditions on the M.I.A. It is already obvious, however, that there are several pitfalls in a too hasty adoption of these new practices. The results of the experiments will be given at field days and subsequently be readily available through the extension services of the Department of Agriculture.

The treatment and subsequent history of the "yellowed" Peach block on Farm 1781 is instructive. After this diagnosis of nitrogen deficiency in October, Mr. Ebert immediately applied 4 lb. of sulphate of ammonia per tree, leaving two rows of trees untreated. On the field day, three weeks later, the manured trees appeared slightly better than the two check rows, but not convincingly so. From then on, however, they improved rapidly. By the first week in December, five weeks after treatment, they were almost back to normal, whilst the two rows of unfertilized trees had

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Shallow ploughing or working with an implement such as the rotary hoe no more than two or three inches deep should be followed by surface cultivations to expose the underground stems and roots to the action of the sun in Summer or frosts in Winter.

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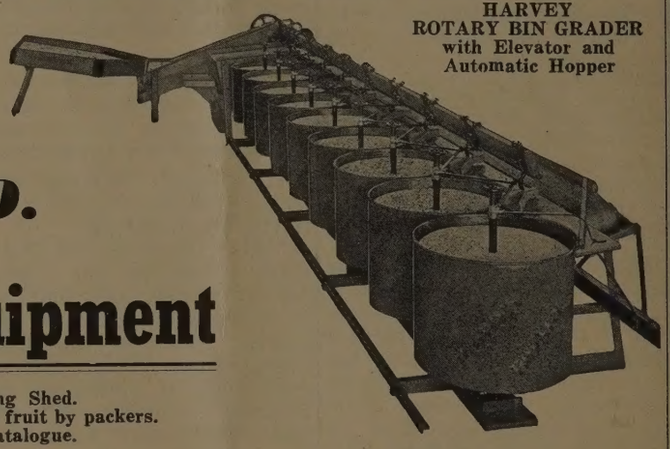

HARVEY ROTARY BIN GRADER with Elevator and Automatic Hopper

Made in sizes to suit the Small Grower and the Largest Packing Shed.
Rotary Bins considerably increase the average daily output. No pawing of fruit by packers.
Stem punctures and bruises eliminated. Write for catalogue.

Citrus Graders Citrus Polishing Machines and Packing House Equipment

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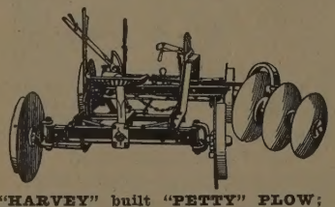
Save Space — Can be used with Hot or Cold Water

"HARVEY" IMPLEMENTS *Make Good Work Easy*



"HARVEY" built "PETTY" PLOW; Plows out strips which have not been plowed for years. Cuts through couch grass with the greatest of ease. Also plows up to the trees and in the centre. **DISC CULTIVATING GANG** can be attached in place of Disc Plow Gang.

"HARVEY" 3-FURROW TRACTOR POWER LIFT HB7 MOULDBOARD ORCHARD PLOW: A one-man job. Built in sizes from two to six furrows

THE BEETLEBACK cuts out all hand working under citrus trees, and keeps the ground level.

It lifts up the branches, cultivates under them, and gently replaces them on the ground.

A HARVEY IMPLEMENT FOR EVERY NEED.

"HARVEY" PATENT OFFSET TANDEM DISC CULTIVATOR: Cultivates right up to the butts of the trees or vines while the Tractor is driven right out in the middle of the row.
Proved to be an excellent machine for deeply cultivating heavy irrigation land.

"HARVEY" CITRUS DISC ATTACHMENT

WITH HOOD FITTED TO WORK WITH "HARVEY" PATENT OFFSET TANDEM TRACTOR DISC CULTIVATOR.

Cuts out all hand working under citrus trees, and keeps the ground level. Specially designed to work right under the limbs up to the trunks of the Orange and Lemon trees. Will lift limbs loaded with fruit off the ground, cultivating to any predetermined depth, and then gently putting back in position the fruit-bearing limbs without injuring the fruit or fibrous roots. Cuts out all weeds without clogging.

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Orchard Implement Specialists

BOX HILL, VICTORIA

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S.A.—Silbert, Sharp & Bishop, Rundle St., East Adelaide.
W.A.—Paterson & Co. Ltd., St. Georges Terrace, Perth.
S.A.—Cole & Woodham, Box 12, Renmark.
Southern Tasmania—Wm. Crosby & Coy. Pty. Ltd., Collins St., Hobart.
Northern Tasmania—Max Geeves, 177 Brisbane St., Launceston.
Queensland: Buzacott (Queensland) Ltd., 443 Adelaide St., Brisbane.

NEW SOUTH WALES—(Ctd.).

become very yellow and unhealthy looking. The matter being placed beyond all doubt, the two untreated rows then received a dressing of 8 lb. of sulphate of ammonia per tree. At harvest the trees on the former "yellowed" block were as green as any on the farm.

Mr. Ebert states that the yield of this block was well up to his farm average this year for Golden Queens of 13½ tons per acre. It was above his average for all varieties of 12-1/3 tons per acre, or a total of 317 tons net deliveries from 25¾ acres of nine-year-old trees. Mr. Ebert's opinion of the value of Subterranean Clover can be judged from the fact that he has allowed the same block to reseed itself this Autumn, and has doubled the acreage under Subterranean Clover on the rest of his orchard.

Agricultural and Horticultural Problems.

The desirability of forming Extension Groups in different parts of the area, with a central executive, was discussed at a general meeting of fruitgrowers of the Leeton district when they met at the Dormitory Hall in mid-June.

The attendance was small for any definite decision to be arrived at, but those present favored the suggestion, and it was hoped that half a dozen growers in each centre would form themselves into Extension Groups to receive mutual benefit from their own discussions and experiments, and to make use of the services obtainable from the Department.

Summer Clean Cultivation.

At a meeting held in Leeton during June, with the object of starting research project farms in the Yanco district, interesting papers were read by Mr. E. S. West and Mr. R. R. Pennefather, of the Hanwood Research Station. Mr. West spoke of the proposal to eliminate tillage from orchard practices, and Mr. Pennefather on research policy and programme.

TORNADO AT ORANGE.

A tornado, the fiercest ever known in the Orange district, swept through a narrow area near the town, doing damage estimated at many thousands of pounds.

Big trees were up-rooted: some sheets of iron were carried a mile. A £2,000 shearing shed was lifted from its concrete foundations and carried away. Much damage was done to Mr. T. Sharpe's orchard; the home of Mr. J. Grant, at the Green Gables orchard, was partly unroofed. Half of Mr. G. Bohringers' house and packing shed were lifted and carried half a mile.

Sympathy is expressed to those who suffered losses.

California produces 32 per cent. of all Beans grown in U.S.A.; Michigan ranks second. Over 15 million bags were produced in all States in 1940.

Fruitgrowers' Federation of N.S.W.

Annual Conference Alarmed by Government's Proposal to Conduct Orchard Tax Ballot — Legislation Foreshadowed re Controlled Plantings, Quality of Insecticides, Improved Grading and Selling Methods, and Uniform Packages — Apple and Pear Acquisition Opposed — The Fruit Fly Menace.

Large Attendance at Annual Conference.

THERE WAS a large and representative attendance at the Annual Conference of the Fruitgrowers' Federation of N.S.W., held at Sydney at the end of June. Brig. General J. Heane presided.

The Minister for Agriculture (Mr. Dunn) was unable to be present, as he was attending the Agricultural Council Conference at Canberra. His speech, however, was read by Mr. C. G. Savage, Chief of the Division of Horticulture. The statement pointed out the danger of the overplanting of Bananas, and the need for legislation to control plantings.

A Bill had been prepared for Parliament dealing with the protection for growers when purchasing insecticides and fungicides; a Bill was under consideration to govern the grading and selling of fruit, vegetables and nursery stock. At the present time the Grading Regulations were under the Plant Diseases Act, and the power was not wide enough. It would be made an offence to handle fruit roughly so as to cause injury.

A marketing stabilisation plan was proposed to be put into operation to permit marketing to be extended and correlated to production.

The Case Act needed amending to prohibit the marketing of fruits in any but the specified cases, thus bringing about uniformity of packages for the different kinds of fruit.

A poll would be taken on July 31 to ascertain whether a majority of the growers desired to retain the Orchard Registration Fee.

Water conservation and soil conservation were receiving serious consideration.

An effort would be made to increase the consumption of Australian wines, thus to improve the position of the wine Grape growers.

The Orchard Tax.

Indignation was expressed at the action of the Government in deciding on a poll of the growers regarding the continuance or otherwise of the Orchard Registration Fee without consulting the Federation.

Messrs. A. E. Herring, A. U. Tonking, H. V. Smith, S. A. Stanford, R. T. Wood, F. B. Mackenzie and others were outspoken in their condemnation of the action of the Government, stating that in the event of an adverse vote the onus would be on the Government for the disorganisation unless the Government provided some substitute. Another resolution, also opposing the referendum, requested that if taken at all it should be deferred for three months.

Mr. A. G. Enticknap, M.L.A. (Labor) urged co-operation with the Government, and not attack born in fear of defeat. Requests for the abolition of the tax had come from all parts of N.S.W., including big commercial growers.

In the event of a poll being taken it was recommended by resolution that there be two ballots—one for the holders of two acres or more and one for the holders of one and more. Figures were submitted as follows:—

Orchard Registration, Year Ending 30/6/37.

I acre and under	13,591
Over 1 acre and not exceeding 2 acres	2,658
Over 2 acres and not exceeding 3 acres	1,363
Over 3 acres and not exceeding 4 acres	935
Over 4 acres and not exceeding 5 acres	890
Over 5 acres and not exceeding 10 acres	2,385
Over 10 acres and not exceeding 15 acres	1,110
Over 15 acres	1,803
Total	24,735

It was decided to place before the city and country press the history of the accomplishments of the Federation; also that a deputation wait on the Premier in connection with the poll.

Annual Report.

The Secretary of the Federation (Col. E. E. Herrod) presented a comprehensive report of the year's activities. The war had seriously affected the fruitgrowing industry. Production costs had risen and prices were depressed. The efforts of the Federation to bring forward the particular needs of N.S.W. growers as distinct from growers in the other States had not been successful. The authority to arrange the marketing of the Australian Apple and Pear crop had been given to the Apple and Pear Marketing Board without consultation with individual growers in the several States.

Regarding **hail insurance** there appeared to be no prospect of a voluntary scheme being instituted. If the industry would agree to a compulsory scheme approved by the Government, the Government Insurance Office would be prepared to handle the matter. The deduc-

WINTER SPRAYING—

PEACH and CHERRY APHIS

CAN DEFINITELY BE CONTROLLED WITH ONE APPLICATION OF

Cooper's

OVICIDE

(The original Tar Distillate Wash)

Sold in 45 gal., 5 gal., 2 gal., and 1 gal. drums

Obtainable from Packing Sheds, Associations, Storekeepers, etc.

Sole Manufacturers:

William Cooper & Nephews (Australia) Pty. Limited

Cooper House, 9 O'Connell Street, Sydney

Manufacturers of Standardised Horticultural Remedies.

tions made by the N.S.W. Apple and Pear Committee had been declared illegal, and refunds were being made.

The Federal Government, which alone had the power to enact legislation for a compulsory insurance scheme, was not disposed to accept full liability for hail damage. The State Government, however, had decided to make advances to assist fruitgrowers on the same terms as to distressed Wheat growers and dairy farmers who were suffering through successive droughts.

The Government's water conservation plans were upset by the war, but £800,000 would be spent during the year on certain projects.

Continuing, the report directed attention to the grave menace of the **Fruit Fly.** The Federation had provided £70 for research, but the proposal of the C.O.D. (Queensland) to the Federal Government for a reward of £1,000 for the prevention of Fruit Fly had not been taken up.

The desired improvements at **Darling Harbour Railway Yard** were not attended to by the authorities. However, the Railway Commissioners had stated that more trucks could be handled should the emergency arise.

The Fruit Fly.

The Chief Entomologist, Mr. T. McCarthy, said the Government was fully alive to the seriousness of the Fruit Fly menace. Mr. Allman had devoted the two years exclusively to this research work, and would be continuously engaged on these investigations until the problem had been solved.

There were nine resolutions on the agenda paper dealing with this matter. It was agreed to ask the Minister to set aside £500 from the Orchard Tax to subsidise the £1,000 reward proposed to be offered jointly by N.S.W. and Queensland, and that all Loquat trees, except those in commercial orchards, be destroyed.

Apples and Pears.

There was a vigorous discussion regarding Apple and Pear control. Earnest speeches were made favoring the present acquisition plan as the only feasible method of dealing with the problem during the war.

Mr. L. Sampson (Orange) said the only rational plan was to prepare for market only those varieties and sizes for which there was a good demand, and from such sources as imposed the least strain on transport and on shipping. The balance should be acquired at the source of production and processed. This season over 10,000 cases of Tasmanian Cleos. were sent to Orange for cool storage, while local Cleos. were assessed as "unwanted."

On a majority vote the following resolution was carried:—

In view of the fact that, under the acquisition scheme, growers are suffering hardships and the Government losing money, we are strongly opposed to the continuance of the scheme after the present season.

Other resolutions carried were:—

That the necessary legislation be passed to enable the Apple and Pear Board to make a deduction for the purpose of providing a fund to compensate growers for loss due to hail damage.

That cases be not sold with the fruit, and that either the case be returned to the grower or the equivalent in lieu thereof.

That the Apple and Pear Board be requested to arrange for sterilisation of all second-hand cases.

That case lot depots be established in Sydney and Newcastle.

Pest Control.

Resolutions were carried:—

That the Government be asked to investigate the matter of fumigation of Apples and Pears for the control of invisible fly and moth stings before the fruit leaves the district.

That the Department of Agriculture be requested to continue investigations in the suppression of Codling Moth by spraying, giving particular attention to tar distillate and red oil.

Inspection.

The double inspection of fruit—in the country and at Sydney—was objected to, and a resolution was carried urging that the certificate of district inspectors be accepted as final.

Mr. O. E. Hawkins (Griffith) said the second inspection was unnecessary and harmed the fruit.

Mr. Savage said the second inspection was deemed to be necessary because of the possible appearance of Codling Moth. Much of the inspection done at Sydney was for fruit from centres where there was no inspector. He denied that the second inspection was harmful to the fruit.

Debt Adjustment.

A resolution was carried that loans made to necessitous growers in 1935-39 should be converted into grants, so that the unfortunate people concerned should have the chance to re-establish themselves.

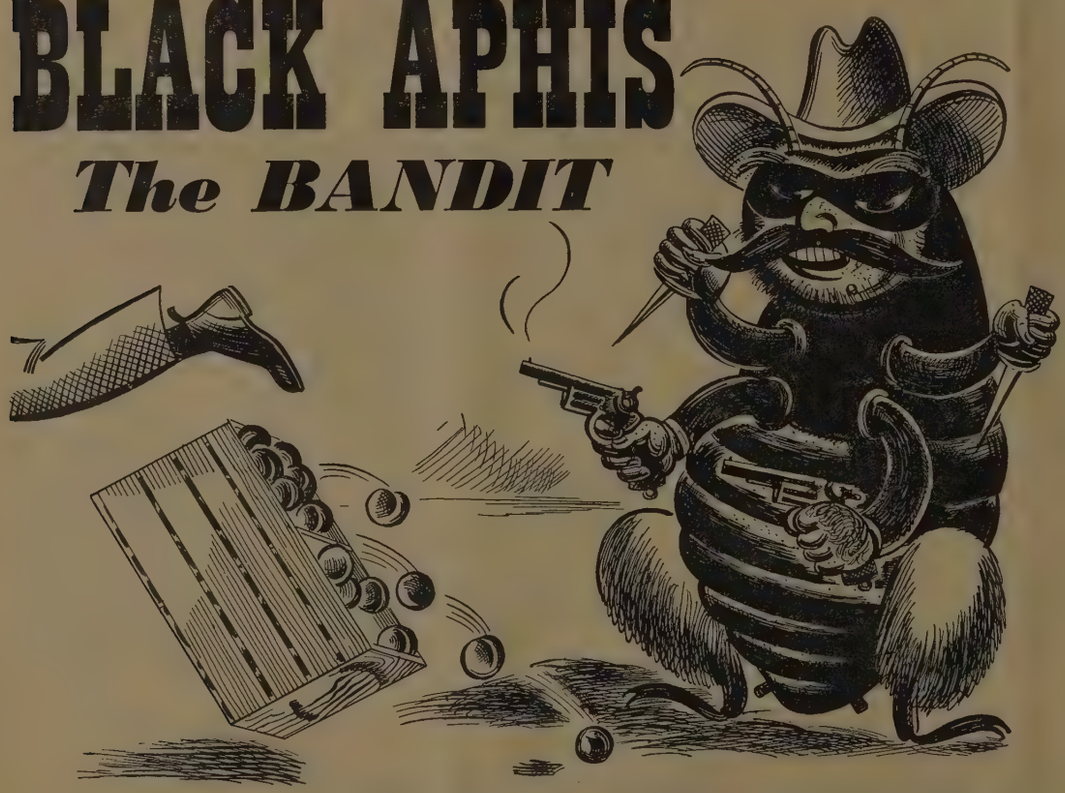
Election of Officers.

Office-bearers were elected as follows:—

President, Mr. F. B. Mackenzie (Kurrajong); Vice-Presidents, Messrs. K. H. Todd, O.B.E. (Griffith), and H. A. Stevenson (Murwillumbah); Board, Messrs. A. S. Brown, Ourimbah (overseas), Deputy—A. E. Lillicrapp (Mangrove Mountain), P. W. James (Dural), H. C. Matheson (Grose Wold), A. A. Wilkinson (Uralla), A. J. Taylor (Singleton), A. E. Horne (Kingsvale), S. A. Stanford (Orange); Secretary, E. E. Herrod, F.I.I.S.; Market Representative, L. T. Pearce.

BLACK APHIS

The BANDIT



Insect pests such as aphides, red spider and mites do not, unfortunately, ease off because there is a war on. They seem to be adding insult to injury, the bandits. The use of Gargoyle RED Spraying Oil in the dormant period is a sure safeguard, an insecticide of proved ability and a definite benefit to tree-health, and (another important thing—in these days of restricted supplies)—it is available everywhere.

VACUUM QUALITY PRODUCT

VACUUM OIL COMPANY PTY. LTD.

(Incorporated in Australia)

Gargoyle RED Spraying Oil

SP 411

New South Wales (cont'd)

Sydney's Apple Festival

Colourful and Educational Event

A SUCCESSFUL APPLE FESTIVAL was conducted in Sydney from June 27 to July 5 by the N.S.W. Publicity Committee of the Apple and Pear Marketing Board. There was a colorful official opening in Martin-place, with singing and pageantry, and during the following days there were lectures, broadcasts, by doctors, dentists and dietitians, demonstrations of Apple cookery in city and suburbs, the showing of appropriate films, distribution of Apples to schools and kindergartens. Over 500 handsomely decorated baskets of Apples and Pears were displayed in city shops of all kinds and there was a fruit shop and window dressing competition which attracted 350 entries. City restaurants co-operated by serving baked Apples, Apple dumplings and other suitable desserts, all using a neat "sticker" on their menus to attract attention to the proceedings.

The official opening was performed by the Hon. C. A. Kelly, M.L.A., Minister for Health, the other speaker being Mr. J. B. Mills, chairman of the Apple and Pear Marketing Board. There was a distinguished gathering on the platform. There were items by the Police Band, and a choir of 300 school boys, cycle racing, and the distribution of Apples to the crowd by charming ladies representing, in costume, "Cleopatra," "Rome Beauty," "Delicious" and "Granny Smith," while two men impersonated "Democrat" and "Jonathan" (i.e. "brother" Jonathan with his whiskers).

On the educational side of the Apple Festival was a lecture before the Rotary Club by Dr. J. Grahame Drew, Metropolitan Officer for Health, and by Mr. J. B. Mills before the Millions Club; broadcasts over national stations by the Hon. H. L. Anthony, Minister for Transport; a member of the Australian Dental Association, Mr. H. V. Smith (Batlow), and L. J. Jenkins (President of the Commonwealth Chamber of Fruit and Vegetable Industries). Mr. R. E. Boardman (Publicity Officer for the Board), addressed the Housewives' Association and showed films re the Oslo Diet and the Apple and Pear Industry.

There were splendid displays in the fruit shops as part of the competition. The judges, who comprised well-known city fruit merchants, had a hard job to select the winners.

The assistance rendered by the Australian Gaslight Co. and City Council Electricity undertaking, in arranging Apple cookery demonstrations in city and suburbs was much esteemed.

By arrangement with the Education Department, every Domestic Science School in the State gave Apple cookery lessons during the Festival. Several thousands of recipe books were effectively distributed.

Valued service was rendered by members of the Publicity Committee, including Messrs. J. Holmes (Chairman), H. A. Stevenson (Supt. N.S.W. Apple and Pear Committee), P. S. Macdermott (Hon. Sec.), Hon. E. C. Sommerlad, M.L.C., Messrs. L. J. Jenkins, T. Hewson, L. T. Pearce, A. C. Ward, S. Pogson, H. McKay (Tasmanian Government Representative), and others.

Appreciation was also expressed to the Commercial Broadcasting Stations 2GB, 2UE, 2UW, 2SM, 2KY and 2CH, for providing time for a series of five-minute broadcast talks on Apples and health.

Altogether the Apple Festival was a successful event, and the foundation has been laid for bigger developments along this line in the future.

BANANA GROWING IN N.S.W.

Fear of Over-Production.

Special reference was made relative to the Banana industry in the speech read on behalf of the Minister for Agriculture (Mr. Dunn) at the recent Annual Conference of the Fruitgrowers' Federation of N.S.W. It was stated that Federal and State Governments were enquiring into the possibility of controlling plantings in future years. In 1939 there were 15,800 acres under Bananas. In 1941 the area was 18,600 acres.

Prices fell below cost in 1935-36, when 1,256,000 tropical cases were produced. At the same rate of production there would be 1,400,000 cases next year, and prices next Summer might fall below production costs.

This envisaged neglect of properties and the danger of spread of disease, particularly Bunchy Top.

SOLID.

Mrs. Newed entered the dining-room and proudly placed the chicken on the table.

"There you are, my dear, my first chicken!" she exclaimed.

Mr. Newed gazed with admiration at the bird's shape.

"Wonderful. darling," he beamed, "and how beautifully you've stuffed it."

"Stuffed?" she echoed. "But. my dear, this one wasn't hollow."

Victorian Orchard Notes

(By J. L. Provan, B.Agr.Sc., Senior Horticultural Instructor, in the Victorian "Journal of Agriculture."

DURING late July and early August Almond trees will be in bloom. Although the Almond is closely allied to the Peach and Apricot, it is unlike these fruits in one aspect, because it requires cross-pollination in order to set good crops. The varieties of Almonds can be divided into three main classes, based on their periods of bloom — early, mid-season, and late blooming. The early blooming varieties include Brande's Jordan, Chellaston, and Early Jordan. These are followed by the mid-season varieties—Riverside, Peerless, and Ne Plus Ultra, and in the later blooming class are found I.X.L., White Nonpareil, and Hatch's Nonpareil. In some districts and seasons the mid-season blooming varieties serve the useful purpose of cross-pollinating the late blooms of the early varieties and the early blooms of the varieties flowering later. It is better, however, if maximum crops are required, to provide varietes which synchronise in blooming.

Failure of the early blooming varieties to set good crops is not always due to inadequate cross-pollination, because at this period of the year the incidence of frosts is greater than a few weeks later when the later varieties are blooming.

If the planting of trees has not been made in such a way as to provide interpollination, then the grower must graft or bud suitable varieties on to the trees for the production of blossom in later years, and adopt the more temporary and also more arduous task of placing boughs of blossom from other varieties in vessels of water suspended in the trees.

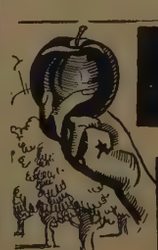
In last month's orchard notes the control of woolly aphid was outlined, but, in addition to those recommendations, growers are urged to collect heavily parasitized twigs during the pruning season and either leave them in a heap at the base of the tree, or place them in old cases scattered throughout the orchard. The parasites hatching from these prunings will markedly increase the population of the Aphelinus wasp in the Spring and Summer months, and this will exercise greater control on the aphid. Growers who have found the parasite rather ineffective until the Autumn are urged to adopt this practice.

Peach and Apricot trees will be approaching the "pink-bud" stage, and the essential 6.4.40 Bordeaux mixture spray should be applied to control shot-hole and scab, curly leaf, and brown rot.

August is a good month to apply fertilizers to the orchard, particularly for the stone fruits, which will be blooming ahead of the deciduous fruits. For mature Peach trees up to 4 lb. of sulphate of ammonia, or its equivalent in some other form of nitrogen, per tree, will be necessary if vigorous growth and production are to be maintained. On more fertile soils this amount can be reduced somewhat, providing the grower carefully watches the trees' vigor. On light soil types about 5 lb. of a complete fertilizer of the 2.2.1 type can be used with advantage. The increase in the cost of nitrogenous fertilizers can be somewhat offset by the more regular use of leguminous cover-crops in the orchard. Consideration of this aspect may become necessary on poor soils. Where difficulty has been experienced in the past in establishing green manure crops, growers should use every endeavor to secure some form of farmyard manure to supplement the Spring application of artificial fertilizers.

Cherries, Peaches, Plums, Apricots, and Almonds may be grafted this month, as soon as growth has continued long enough to allow the bark to be separated easily from the wood of the stock. The scions, of course, must have been obtained in the Winter and kept dormant by storing in a cold place. For sealing these grafts Colgraft and Mastic H will be found more convenient than the mixture of Colas and starch formerly employed for this purpose. Attention to disbudding, tying of growths from scions, and reseaing will be future operations to bear in mind, and these practices always repay the time spent on them.

Citrus harvesting will be continued throughout this month. Washington, Navel Oranges, particularly, as their maturity


Fruit Trees
GOODMAN'S
For prolific bearing, guaranteed free from insect pests, famous for strong, fibrous roots.
All types labelled true-to-name. Apricots, Apples, Nectarines, Peaches, Pears.
C. J. GOODMAN, Picnic Point Nurseries, Bairnsdale, Vic.

"Bay View" Picking Bag

For Apples and Citrus Fruits

Allows use of both hands. No bruising of fruit. Weight carried on shoulders, instead of back of neck. Full way opening for discharge. No hooks to injure trees.

PRICES—"Bay View" Bag, web straps, 12/-; with leather straps, 15/-; "Bay View" Bag, leather bound, leather straps, 20/-.

Postage, within State, 1 bag 1/6, 2 bags 2/-; adjoining State, 1–2/6, 2–3/6.

Sole Mfrs.: FOTHERINGHAMS PTY. LTD., 118 Charles St., Launceston.
Victorian Agent: F. R. MELLOR, 452 Queen Street, Melbourne, C.1.

Fruit Trees & Fruit Tree Stocks

Splendid Stock of Healthy Plants Available.

APPLES, PEACHES, PEARS, PLUMS, APRICOTS, CITRUS, ETC., PACKED AND DESPATCHED TO ALL PARTS OF THE WORLD.

Overseas Orders receive careful and prompt attention.

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A SURE FRIEND IN UNCERTAIN TIMES

SHOULD anything happen to you, sir, your family will have some financial problems.

They will have your bills to pay: funeral expenses, Probate duty, Income Tax on your last year's income, and, above all, they will have to face the *problem of the future.*

Have you arranged that the necessary money will be available to meet these needs? Have you enough Life Assurance?

If you will set aside a small sum each month, or each quarter, the A.M.P will undertake that, in the event of your death, your family will receive not merely what you have set aside, but the total of what you *intended to set aside* for them over the years.

Ask that we send a man to talk this over with you. He will tell you of the *many different ways* in which the Society can help you eliminate financial anxiety. Drop a note to this office, or 'phone Don't leave it till to-morrow; *even to-morrow may be too late.*

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The Largest Mutual Life Office in the Empire.
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Head Office: 87 Pitt Street, Sydney

increases, become more susceptible to mould development, and therefore very careful handling and the maintenance of hygienic conditions in the orchard and packing house are necessary. Picking bags, lug or sweat boxes, and graders should be kept as clean as possible. When packing, care should be observed to prevent excessive abrasion against the rough sides of the cases and squeezing and cutting in the lidding operation. Dressed timber on the inside of the case and careful handling of the lidding press will assist in reducing mould incidence in the fruit when it reaches market. Do not allow mouldy Oranges to remain in the packing house.

It is likely that a more vigorous campaign for the reworking of many undesirable varieties of Apples and Pears will become necessary, and growers are advised to collect scions of the popular varieties while the trees are still dormant.

Queensland

Late Winter Jobs.

Pruning and Cultivation.

Dependent upon the climatic conditions as to rain up to date and upon what has already been done in the orchard, the following jobs should be attended to if not already covered in the planned programme. The notes are from the Queensland Agricultural Journal.

Clean up all orchards and vineyards, destroy all weeds and rubbish around the trees likely to harbor pests of any kind, and keep the surface of the soil well stirred, so as to give the birds and predacious insects every chance to destroy any fruit fly pupæ which may be harboring in the soil. If this is done, many pests that would otherwise find shelter and thus be able to live through the Winter will be exposed to both natural enemies and cold.

Pruning may be started on fruit trees which have shed their leaves, as it is a good plan to get this through as early in the season as possible instead of putting it off until Spring. Early-pruned trees develop their buds better than those pruned late in the season. These remarks refer to trees—not vines. The later vines are pruned in the season the better in the Stanthorpe district, as the late-pruned vines stand a better chance of escaping injury by late Spring frosts. All worthless, badly-diseased, or worn-out trees which are no longer profitable, and which are not worth working over, should be taken out and burnt, as they are both valueless and a harbor for pests.

Land intended for new orchards should be got ready and its preparation should be thorough. All stumps and roots should be removed to a depth sufficient to ensure their not impeding cultivation. The preliminary cultivation should consist of a light ploughing of a depth sufficient to turn the weeds or grasses so that their roots are exposed, followed by cross ploughing and harrowing, whereby light roots, etc., are collected and removed. When perennial weeds, of which couch grass is a fair sample, are eliminated, the land should be ploughed and cross ploughed as deeply as possible, and the soil reduced to a fine tilth. Where subsoiling can be practised, it is a decided advantage in admitting root penetration and conservation of moisture.

New Fertilizer Works.

Construction of the new fertilizer and chemical works at Pinkenba (Q.), which was begun in 1939 by the A.C.F. and Shirleys Fertilizers Ltd., is now completed. The last section of the machinery has been received from England and is installed. Production of superphosphate will begin shortly.

This announcement was made by Mr. Bruce Shearer, chairman and managing director, at the annual meeting held recently. Sir Fergus McMaster was welcomed as a new director.

Mr. W. Benfer (Victoria Point) congratulated the company on its far-sighted policy of amassing stocks of fertilizer to protect farmers against a shortage of supplies, thus ensuring continuity of fertilizers for the agricultural industries.

APPLES FOR COWS.

Apples are a valuable addition to the diet of milking cows, states Mr. H. J. Fourneau, a well-known Jersey breeder, of Pakowhai, Hawke's Bay, New Zealand. Mr. Fourneau has fed Apples and bran to his herd for some years past, with excellent results, and claims that some of the best production records put up by his stock would not have been possible had it not been for this feed.

"As a supplement when there is no succulence in the pasture, Apples are hard to beat," said Mr. Fourneau.

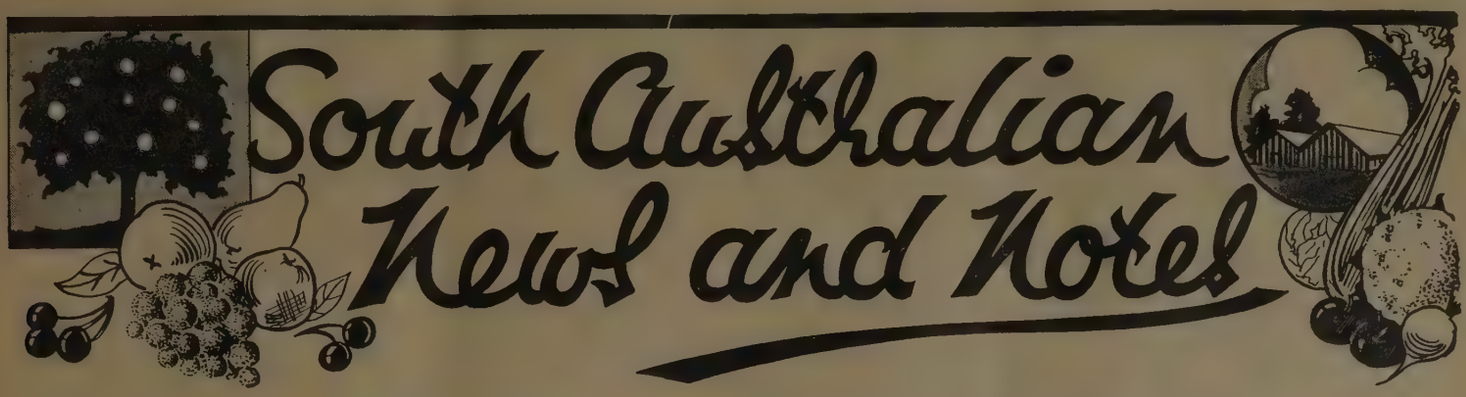
The Apples he gave to his cows were reasonably ripe ones: he had never fed them green Apples, and he would say that they would be no better for a cow than they would be for a human being.

EXPERIENCED.

An old lady, who could not see eye to eye with the taxi-driver on the question of fare, finally remarked:

"Don't you try to tell me anything, my good man. I haven't been riding in taxis five years for nothing."

"No," replied the driver, "but I bet you've had a blinking good try."



Official Reports and Notes of the South Australian Fruitgrowers' and Market Gardeners' Association

S.A. Fruitgrowers and Market Gardeners' Association Incorp.

MEETING OF EXECUTIVE COMMITTEE.

THE Executive Committee of the above Association met in the Board Room, 288a Rundle-street, Adelaide, on Friday, June, 1941, at 10.30 a.m.

Present: Mr. H. N. Wicks (President), Messrs. C. J. Pitt, W. G. McLaren, J. D. Yeatman, L. G. Pethick, L. B. Pfeiffer, B. Schapel, H. B. Robson, O. Essalbach, C. H. Ragless, G. H. Schultz, J. B. Randell, W. Wye, J. Turner, M. G. Hannaford, M. J. Vickers, H. W. Parsons, R. A. Cramond, and A. G. Strickland (Chief Horticulturist).

Apologies: Messrs. C. Stanford, M. Packer, C. Ridley, A. O. Petersen, W. J. Bishop, L. J. Wicks, and N. T. Hobbs.

The Chairman extended the sympathy of the Association to Mr. A. G. Strickland, whose father passed away recently.

Correspondence: Circular from the Minister for Trade and Customs seeking the co-operation of the Association in regard to the appointment of the representative on the Committee of Growers of non-canning fruits.

Resolved that Mr. H. N. Wicks be nominated as the nominee from this Association.

Sectional and Branch Reports.

Celery: The Secretary reported that the season was in full swing, and export quantities were high.

Tomato: The Secretary reported that the Sectional Committee would be meeting shortly to make arrangements for the coming season.

Citrus: Mr. O. Essalbach reported that citrus quantities were increasing. The Association had made very satisfactory arrangements in connection with the Poorman Orange crop.

Soft Fruit: Mr. L. G. Pethick stated that there was very little to report except that pruning was now well under way.

Apple and Pear: Mr. M. J. Vickers reported that Apples were selling freely, over 18,000 cases being cleared per week. If the present rate continues stocks should clear satisfactorily.

Mr. H. N. Wicks reported that the questionnaire sent out by the Association had had a good response, and as the Joint Federal Commitee would be in Adelaide on July 7, it was necessary to appoint some member or members to represent the Association at the enquiry.

Resolved that Mr. H. N. Wicks represent the Association at the enquiry.

Onkaparinga Potato Branch: Mr. L. B. Pfeiffer reported that the Branch was still making good progress and a desire for the linking up of growers in the Gumeracha district was being investigated.

Marion Branch: Mr. H. W. Parsons reported that the last meeting of the Branch had taken the form of a social evening, when opportunity had been taken to farewell two members who had joined the Fighting Forces.

Fruitgrowers' Society: The Secretary reported that June 30 would mark the end of a very satisfactory financial year for the trading Society. Turnover figures would constitute an all-time record.

Petrol Rationing: Concern was expressed by the meeting at the rationing of petrol to come into force on July 1. The manner of rationing, namely, by horsepower and not on a mileage basis, was considered unfair, and would seriously embarass fruitgrowers and market gardeners beyond the metropolitan area. Particularly was this felt when unnecessary running is being effected by other sections of the community.

Resolved that the Liquid Fuel Control Board be contacted, placing the full position before them and seeking a more equitable form of rationing.

VACUUM FUMIGATION PLANT.

Up-to-date Fumigation Facilities at Port Adelaide.

Insect infestation is a problem of considerable importance in the storage of many types of merchandise such as seeds, grain, nuts, neatmeat, materials like timber, cane, etc.

Such infestation may be checked by fumigation, and most effectively by vacuum fumigation. In this latter process, the commodities to be fumigated are placed in a gas-tight, steel chamber, the air removed by pumping, and then replaced with a gas lethal to the insects. By this method, there is immediate penetration of commodities by the lethal gas, and insects are killed with a rapidity and certainty not obtainable in an atmospheric fumigation vault. Vacuum fumigation also has the advantage of enabling "air-washing" of the commodity, whereby all traces of the lethal gas may be quickly removed.

Recently the South Australian Government established at Port Adelaide a vacuum fumigation plant incorporating modern features, the only plant of its kind in South Australia, and probably more up to date than any in the Commonwealth.

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30 Varieties of Persimmons stocked.
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All Varieties Grown and Tested in Own EXTENSIVE ORCHARDS Affording Perfect Bud Selection.

WRITE FOR ILLUSTRATED CATALOGUE.

Trade Supplier of Standard and Threequarter Standard Roses

The South Australian Fruit Marketing Association, Inc.

EXECUTIVE COMMITTEE.

MINUTES of monthly meeting of members held at Adelaide on Friday, June 27, 1941, at 2.45 p.m.

Present: Messrs. H. N. Wicks, F. F. Redden, M. G. Basey, H. Nickels, A. G. Strickland, P. R. B. Searcy, R. B. Pritchard, L. J. Bishop, J. B. Randell, A. Brealey, M. J. Vickers, L. G. Heading, R. H. A. Lewis, and the Secretary.

Apologies: Messrs. S. M. James, R. G. Hannaford, J. H. Dunning, A. R. Willsmore.

The President, Mr. J. B. Randell, occupied the chair.

Correspondence: Letter dated June 10, 1941, from the Secretary to the Premier acknowledging receipt of copy of resolution regarding pests and diseases in Pear and Apple Orchards.

Letter dated June 12, 1941, from Assistant Minister for Commerce acknowledging receipt of Association letter re next season's activities in connection with the Apple and Pear Scheme to enable provision to be made for the necessary labor and advising that the matter was receiving the attention of the Government and it was anticipated that an announcement as to next year's scheme would be made in ample time to meet the wishes of this Association.

Co-operation with S.A. Fruitgrowers' and Market Gardeners' Association: In introducing the discussion on this matter Mr. H. N. Wicks stated that his motive was solely to save time, and avoid the overlapping of work by the two separate Associations.

The suggestions set out by him were purely of a preliminary nature as a basis for discussion to enable a satisfactory solution to be arrived at in the general interests of the industry.

A very lengthy discussion followed, the speakers being Messrs. J. B. Randell, M. G. Basey, P. R. B. Searcy, H. N. Wicks, M. J. Vickers, L. J. Bishop, L. G. Heading, F. F. Redden, and R. B. Pritchard, and as it was obviously impossible to reach any decision it was resolved: "That the matter be deferred for further discussion at the August meeting."

Mr. H. N. Wicks expressed his appreciation of the way the matter had been discussed, and he asked members to give careful consideration to the various points that had been raised and to bring to the August meeting constructive criticism so as to enable the present difficulties to be overcome.

Joint Parliamentary Committee on the Apple and Pear Acquisition Scheme: Mr. M. J. Vickers stated he had been advised that the Joint Parliamentary Committee will arrive in Adelaide to take evidence on Monday, July 7, and the Committee suggested that two representatives of growers, two merchants' representatives, and two retailers should be appointed to give evidence.

After a lengthy discussion it was resolved that Mr. J. B. Randell be appointed to represent the Association.

The Secretary was instructed to prepare a statement setting out as far as possible the opinion of the Executive Commiteee in regard to the scheme.

It was agreed that a big majority favored an acquisition scheme, but there was a difference of opinion as to how it should be carried out, but comparatively few growers were totally opposed to the scheme. It was generally considered that the scheme had been beneficial to the growers personally from a financial point of view.

Exporters' Representative: It was resolved that Mr. G. S. Queale be appointed as the exporters' representative from this Association to give evidence before the Joint Committee.

Alternative to Acquisition Scheme: Mr. M. G. Basey stated that the Association should consider what the position would be if there was no acquisition; it was very difficult to realise, but he thought they should prepare to meet the situation that would arise.

It was better to consider the matter now, so as to be prepared with alternative schemes of a workable nature if acquisition was abandoned.

Lack of time prevented further discussion on this matter.

THE SOUTH AUSTRALIAN FRUIT MARKETING ASSOCIATION INCORPORATED.

Growers' Sub-Committee.

MINUTES of monthly meeting of members held at Adelaide on Friday, June 27, 1941, at 1.45 p.m.

Present: Messrs. H. N. Wicks, J. B. Randell, M. G. Basey, M. J. Vickers, A. G. Strickland, R. H. A. Lewis, R. B. Pritchard, F. F. Redden, H. Nickels, and the Secretary.

Apologies: Mr. S. M. James.

Mr. M. G. Basey occupied the chair.

Future Meetings: The Chairman stated that Mr. A. G. Strickland had agreed to defer his address on "Primary Asco Spores" until the August meeting.

THE SOUTH AUSTRALIAN FRUIT MARKETING ASSOCIATION INC.

July Meeting.

The July meeting of the Association will be held at the Claridge Theatre, Gawler-place, Adelaide, on Friday, July 25, 1941, commencing at 2 p.m.

Mr. A. G. Strickland, Chief Horticulturist, will display films dealing with—

Reworking;
Fruitgrowing in Canada;
Use of naphthalene acetic acid preparation to reduce the pre-harvest "drop of fruit;"

and other films of interest.

All growers and others interested in the industry are cordially invited to attend, irrespective of membership of the Association.

E. WHITFIELD MILLS,
Secretary.

At the meeting on July 25 Mr. Strickland would exhibit films dealing with reworking, fruitgrowing in Canada, use of naphthalene acetic acid preparation to reduce the pre-harvest "drop of fruit," and other films of interest to growers.

The meeting would be held at the Claridge Theatre, Gawler-place, Adelaide, commencing at 2 p.m. All growers to be invited to attend, whether members of the Association or not.

At the September meeting Mr. R. B. Pritchard would initiate a discussion on "Causes of Pears not setting."

An informal discussion took place on the Apple and Pear Acquisition Scheme, with particular reference to the effect on the industry if the scheme was abandoned.

"Your neighbors are honest, I hope?" one asked the old Negro.

"Yassir, dey is."

"But you keep that loaded shotgun near your hen coop."

"Yas, dat's to keep 'em honest."

New McCORMICK-DEERING FARMALL-A IMPLEMENTS
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Ploughing away from the butts of fruit trees is a simple operation when this GL-151 toolbar-connected 3-furrow mouldboard plough is used in conjunction with the McCormick-Deering Farmall-A tractor. The plough can be set in any desired position for offset "ploughing on," "ploughing off," or for regular ploughing.
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The toolbar - connected mouldboard plough illustrated above is only one of the many new vineyard and orchard implements which are available for use with the McCormick - Deering Farmall-A tractor.
Each implement connects to the wide slotted toolbar and becomes a part of the tractor, providing an unusually compact unit for working close to the butts of vines or fruit trees, and for easy manoeuvring and turning on short headlands.
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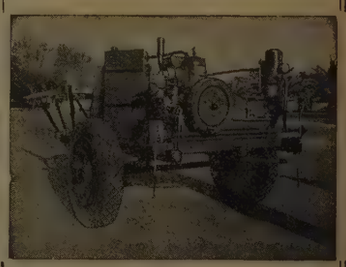

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Potato Virus Diseases, The Scientist and the Farmer

(By J. G. Bald, Research Officer, C.S.I.R.)

(Continued from June Issue.)

IN the first section of this article a description was given of the virus diseases of Potatoes, Mosaic and Leaf Roll, that are transmitted by aphides. The elimination of these diseases is one of the primary objects of certification schemes. Certification schemes are designed to reduce both the chances of infection in the seed crop during growth, and the chances of carrying over the diseases by means of infected seed tubers to crops planted for the production of table Potatoes.

The principles of control by certification are simple, although the details have to be carefully worked out. The main points are:—

1. The choice of the most suitable areas for growing seed Potatoes, and the confining of the growth of certified seed to these areas. The areas are those in which the aphis transmitters of virus diseases are not numerous or active during the growing period of the crop, particularly that part of the growing period from emergence to flowering when growth of the above-ground portions of the Potato plant is most active. The Potato plant is then more susceptible to infection than when the tops have reached their full size and the tubers are expanding.

2. Planting for seed crops only stocks that are comparatively free from virus diseases. How such stocks may be obtained even from heavily infected crops will be discussed later.

3. The seed crop must be planted in ground which has not grown potatoes the previous year or, preferably, for several years. Self-sown Potatoes often carry a high proportion of Mosaic and Leaf Roll, particularly if the crop from which they came was heavily infected. Apart from the question of virus diseases, planting two seasons in succession on the same ground is a common way of introducing varietal impurities, and it encourages the development of soil-borne diseases such as **Rhizoctonia** and Wilt.

4. The seed crop must be reasonably isolated from other Potatoes likely to carry virus diseases. Isolation reduces the chance of aphis carrying infection into it. What distance from other crops is necessary depends on the district in which the seed Potatoes are grown and on other circumstances; often it can only be determined by experience. A minimum of 50 yards is sometimes demanded, but the distance may have to be greater. Winged forms of aphides carrying infection can travel much further than 50 yards, but when a number of them are flying outwards from a centre of infection, most of them settle nearby, and only a small proportion go any distance.

5. Weeding out all visibly infected plants from the growing crop—this is called roguing. Roguing should be done as early as possible in the life of the crop, as every infected plant is a potential danger to those around it. Within a crop it is mainly the wingless forms of aphides that spread virus diseases, by crawling over the ground or from leaf to leaf, so that healthy plants around a diseased plant are more likely to be infected than those further away.

If aphides do not first feed on a diseased plant, they cannot cause infection. A perfectly healthy crop completely isolated from all sources of infection would remain free from Mosaic and Leaf Roll however many aphides were present. In practice, complete freedom from sources of infection is almost impossible, so a heavy infestation of aphides is always dangerous.

6. A good standard of cultivation and reasonable freedom from weeds. The reason for this requirement is twofold: poor cultivation generally means poor growth, and when growth is poor it may be difficult to see which plants are healthy and which are diseased. Roguing may be difficult and diseased plants are likely to be left in the crop. Also, Mosaic and Leaf Roll may infect certain weeds, e.g., Nightshade and Thorn Apple, and aphis are just as likely to pick up viruses from these as from infected Potato plants, and pass them on to healthy plants.

7. The points so far discussed outline the responsibilities of the grower of certified seed, but the basic principle of certification is that some independent expert authority should be available to advise the grower, inspect the seed crop, and see that it reaches a pre-determined standard of freedom from disease, varietal purity, etc. The independent authority in most schemes is the Department of Agriculture, which supplies certification officers to make the inspections. A certification officer makes two or possibly three inspections of the growing crop, the first at the early flowering stage, and another. say six weeks later. He makes counts to see the proportions of diseased plants and varietal impurities, and notes the area submitted for certification, the condition of the crop, the state of cultivation. etc. Roguing must be completed before the last inspection. If the crop is up to standard, a further inspection is made of the tubers after they are dug, and tags or seals are issued to the grower to fasten on the bags into which the tubers are loaded. The bags are labelled, the seals attached, and while they remain unbroken the contents may be sold as certified seed. In some schemes a price for certified seed is fixed each season; in others certified seed is sold at a premium above market price.

A feature of most certification schemes in Australia and elsewhere is the way the general principles outlined above are modified to suit local conditions, and when a scheme is being started, as in South Australia at present, the experience of the farmers growing the seed crops is invaluable in formulating the regulations which will finally control it. It is they who first see many of the practical difficulties in obtaining an absolutely reliable product, and it is to their ultimate advantage that fairly stringent regulations should be framed in the light of local experience, and strictly adhered to. Co-operation and mutual confidence between growers and certification officers is essential to the success of a certification scheme.

As the people actually concerned in a certification scheme are best qualified to decide just how it should be organised, little is to be gained by discussing in such an article as this the working details of certification. However, there are some points arising out of the general principles already outlined that may be amplified.

The first of these is concerned with the foundation and maintenance of Potato stocks of the best possible quality, from which seed may be obtained for planting bulk crops for certification. The maintenance of these stocks is an insurance against failure, and reduces the labor needed for roguing and similar operations. The parent stocks may be, as in Tasmania, grown by the Department of Agriculture on a Departmental farm; they may be maintained by farmers in especially favorable situations, who are particularly skilled in growing high-quality seed stocks; or each seed grower may maintain a plot to supply his own requirements.

A reasonable size for a seed plot is one-tenth the acreage that a grower intends to plant for certification the following year. The site should be isolated by as great a distance as possible from other Potatoes. If a grower wishes to found a seed plot from his bulk crop, he should begin by staking the healthiest and most vigorous plants he can find while the crop is growing, and digging them before the rest are dug. Any plants that do not yield well should be discarded. The tubers so obtained should be sprouted and greened, and preferably planted on what is called the tuber unit system. This system involves the use of tubers large enough to cut into two or prefer-

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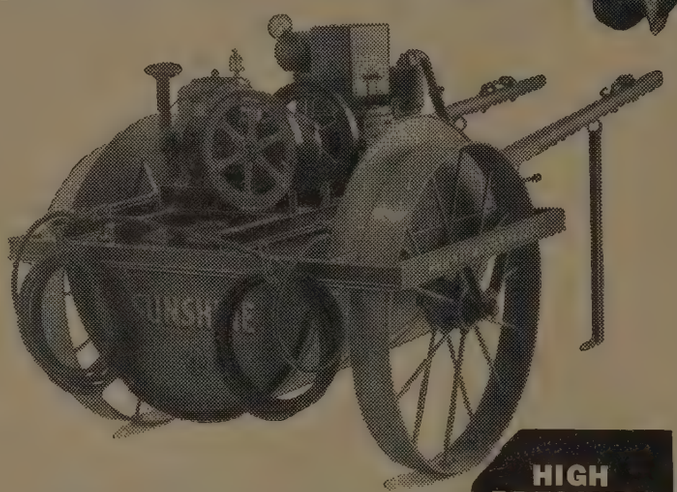

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It is economical to buy and to run, easy to operate, light in draught and absolutely dependable for long trouble-free service.

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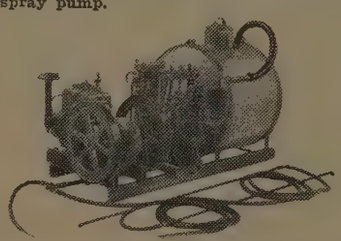

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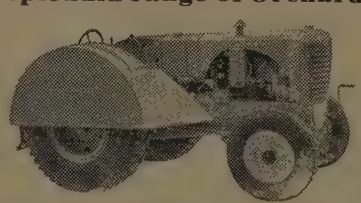

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ably three or four seed pieces. The cuts are made so that the tubers remain intact until they are actually planted, and may be broken into the pieces by the planter. The pieces are planted side by side along the furrow, and a space is left between each tuber unit, consisting of seed pieces from the same tuber, and the next. A small peg may be placed in the space, but if germination is satisfactory this is not necessary.

The reason for planting in tuber units is that if one seed piece from a tuber is infected with a virus disease, or for that matter with other seed-borne diseases, the other seed pieces are almost certain also to be infected. When the crop is growing it is comparatively easy to pick out 3 or 4 plants together that are diseased or less vigorous than adjacent plants. If one plant of a tuber unit is seen to be diseased, the whole unit should be rogued at once. Another advantage of this system is that it reduces possible sources of infection from which diseases may be spread to healthy plants; instead of the pieces from a single infected tuber being spread through the crop, they are localised in one spot.

The seed plot should be frequently inspected from the time the plants are well above ground until maturity, and roguing should be rigorous. The labor involved and the loss of yield even from roguing a large proportion of plants from the seed plot are small compared with the labor required and the losses involved in heavy roguing of the whole crop. It is possible by paying constant attention to the seed plot to obtain such high quality seed for bulk planting that roguing of the bulk seed crop becomes a quick and easy job, and the chances of the crop failing to come up to certification standards are reduced to a minimum.

The same choice of the best plants is made in the seed plot for planting the plot the next season, while the rest of the yield is bulked for planting the main seed crop. Growers who have especially good facilities for isolating small plots have sometimes chosen one plant and multiplied it until they have had enough seed to plant the seed plot; have then again chosen one plant from the seed plot and gone through the same process.

Careful selection of material for the seed plot has many advantages, not the least of which is that it places a standard of health and vigor in front of the seed grower by which to judge his crop. When his bulk crop is as healthy, looks as well and yields as well as the best material that can be found to make up his seed plot, he will have attained the aim of all certification schemes.

It will be gathered from this discussion that although the reduction of virus diseases is foremost amongst the objectives of certification, there are others: the control of all seed-borne diseases, the maintenance of a high standard of varietal purity, and the selection of high yielding, good quality strains of suitable maturity. Its secondary effects on the farmers who use certified seed are also quite pronounced; given good seed, he is inclined to take more care of his crop, and if his eye is sharpened for the effects of virus diseases, he sees other defects and irregularities in his crop he might otherwise miss. The end result is greater efficiency and economy; economy in the area of land needed to plant the Potato crop, and in the labor of caring for it. When labor is short and wastage more than a personal loss these considerations are of great importance.

RHIZOCTONIA AND SCAB OF POTATOES.

Tuber-borne scab and rhizoctonia may be controlled by the immersion of the potatoes before planting in an acidulated solution of corrosive sublimate for ten minutes. The strength of the corrosive sublimate used in this treatment is 1 in 1,000 (4 oz. of the chemical in 25 gals. of water), while 2 pints of hydrochloric acid are added to each 25 gals.

To prepare 25 gals. of dipping solution, 4 oz. of corrosive sublimate (mercuric chloride) are dissolved in a glass or glazed earthenware vessel by stirring in 2 pints of commercial hydrochloric (muriatic) acid. This stock solution is diluted with water in a wooden barrel or vat so that the final volume is 25 gallons.

The solution may be safely used for fifteen ten-minute dippings. If the time of treatment is then increased to fifteen minutes, the weakened solution will still be effective for an additional five dippings. After this it should be discarded.

Dipping may be carried out some months prior to planting. It is important that tubers be treated before they have commenced to sprout and before cutting. The potatoes should be placed directly into the solution and not dipped in bags. A very convenient method of treatment is the use of a wooden crate which is built to fit snugly inside a large wooden barrel. The lifting of the full crate in and out of the barrel may be done by means of a pulley block and tackle. After treatment, the potatoes should be rapidly dried, as otherwise the eyes may be damaged. Dipped potatoes should not be fed to stock.

Further information on the rhizoctonia and scab diseases is given in a leaflet obtainable from the Department of Agriculture in Sydney, N.S.W.

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Goulburn Valley [Victoria] Notes

(By Our Correspondent.)

APPRECIABLE rains fell over the Goulburn Valley during the month of June, when over one inch was recorded, but heavier falls are urgently needed to give the subsoil a good soaking. The light rains have been most beneficial to crops and pastures, and with the mild weather prevailing, conditions generally have improved.

Pruning operations are proceeding satisfactorily, although a great shortage of labor still exists, and most growers have had to break in many new hands for pruning in an endeavor to get the job finished on time.

Petrol restriction is causing some concern throughout the fruit-growing districts, where supply of petrol is such an urgent necessity for spray pumps and tractors, to say nothing of the use of cars for business purposes.

Spraying operations in Peach orchards for the Green Peach Aphis will commence early next month. When applications of tar distillate sprays will be applied. This spray in recent years has been found to give complete control of Peach Aphis, if thoroughly and efficiently applied.

:: ::

Many Goulburn Valley boys have been reported missing in the latest war casualty lists in the recent battles in Greece and Crete, in Mooroopna alone eight of the local boys are posted missing, and our deepest sympathy goes out to the parents of those noble sons in this time of great anxiety.

Fruitgrowers Collect 200 tons of Wood for Orchard Queen.

Miss Doreen Dobson has been chosen Orchards Queen for the competition for the Red Cross Funds, when she was loyally supported by two hundred men and many trucks, who made a tremendous effort on her behalf and in two days last week carted into Shepparton over 200 tons of box wood, which they cut in the forests near Rushworth, 30 miles distant.

The long procession of 30 trucks passed through the Shepparton streets on its way to the S.P.C. Cannery, which purchased the whole of the wood at a substantial figure.

The quantity in so short a time is claimed by the organising committee to be a State record.

Show Grounds to be Taken Over by R.A.A.F.

The Minister for Air (Mr. J. McEwen) announced recently that the Shepparton Show Ground was to be taken over by the R.A.A.F. as a recruit depot.

It is anticipated that the depot will accommodate 900 to 1,000 men. When the ground is ready for use, No. 1 Recruit Depot, now at Laverton, will be transferred to Shepparton.

Pear Industry.

Growers Want Future Clarified.

Anxiety concerning the future of the Pear industry was expressed at a meeting of Shepparton Fruitgrowers' Association at Shepparton East.

Resolutions were passed favoring the continuance of the Apple and Pear Board, and also recommending the S.P.C. to increase its capacity for handling additional quantities of W.B.C. Pears.

Reviewing the activities of the Apple and Pear Board, the President, Mr. N. W. Fairless, who is a member of the State Advisory Committee, declared that acquisition had preserved the industry from complete chaos.

The Board had been subject to much unfair criticism. Much fruit could have been saved, and the acquisition scheme would have operated under more favorable conditions, but for the delay of the Federal Government with its election pre-occupations.

Preparations for administering the scheme had been completed in August, but with the Federal elections intervening, the Board authority to act was not gazetted until New Year's Eve, by which time the season was well under way.

He considered the Federal Government should be requested to clarify the position as soon as possible.

He could not even say whether **the acquisition** would apply next season or not. With higher wages and 33 per cent. cost on production, he considered that growers should advocate for a price based on the cost of production.

That there should be a review of **canning prices** was advocated by Mr. Ford, who said growers were being asked to carry a greater proportion of the war effort than others.

If the industry was worth saving, growers should not be called upon to carry increased manufacturing and labor costs.

With the increase in the production of W.B.C. Pears, the time had come to ask the S.P.C. to increase its capacity for the handling of Pears.

There was no desire to embarrass the cannery, which was confronted with great difficulties, but growers should take the long view.

Mr. J. J. Young, who is a director of the S.P.C., pointed out the difficulties of the tinplate position, and added that although he had always favored extensions at the cannery, there had been a progressive increase, and any sudden jump would be undesirable.

Top: Almond stocks ready for budding Below: Yearling Apricots.
(Photos. taken at nursery of Mr. H. N. Wicks, Balhannah, S.A.)

On the motion of Messrs. Ford and Jones, it was resolved to request the Northern Fruitgrowers' Association to advocate for a revision of prices and conditions of canning Pears based on the cost of production.

It was also agreed on the motion of Messrs. N. Craig and Stephens, to draw the attention of the S.P.C. to the increased production of W.B.C. Pears, and suggest to the Directors that they should consider increasing its capacity for handling Pears.

A motion was also passed favoring the continuance of the acquisition scheme, and asking the Federal Government to introduce the necessary legislation much earlier in the year.

Drainage for Fruit Area.

Possibilities of Shepparton fruitgrowing area securing a satisfactory drainage scheme, was mentioned by Mr. N. W. Fairless at a meeting of Shepparton Fruitgrowers' Association.

He said the Water Commission had spent large sums on drainage in the fruit area, but while this was appreciated it in no way represented a complete solution to a very real difficulty.

Mr. J. G. B. McDonald, M.L.A., had asked the commission to prepare a scheme which would drain the settlement effectively for all time.

The present scheme had been devised to dispose of excess irrigation water, although it was admitted it could not cope with periods of excessive rainfall.

In the wet season of 1931 they had lost 42,000 trees, while another 80,000 trees had been lost in Shepparton in the wet season of 1938.

These losses were disastrous, and they wanted the Commission, irrespective of cost, to provide a drainage system, the efficiency of which would not be impaired by any amount of rain.

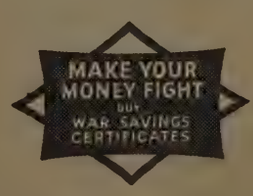
Such a scheme was beyond the capacity of the fruitgrowers to finance and it was contended it should be a State responsibility, although the fruitgrowers would be prepared to contribute to the maintenance costs.

Mr. Fairless announced the Water Commission Engineer (Mr. H. F. Byham) had finally drawn up a scheme which would drain the whole of the fruit area and beyond it.

Young Farmers.

Peach Growing Project.

When Mr. J. Caldwell school inspector of the Castlemaine district was speaking at this year's School of Agriculture organised by the Young Farmers' Club Association, he stressed that the major project should have a living and vital bearing on the district. He added that he had noted this especially in his old inspectorate of Shepparton, in which there were excellent fruit projects, particularly at Shepparton East and Grahamvale, where the scholars planted Peach nuts, and raised Peach seedlings and then budded on the desired varieties.



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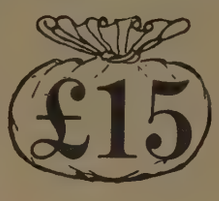

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Here is a Summary of Yields to date:—

Fertiliser Treatments (per tree) applied August	Yields in tons, cwts. qrs. 1938	1939	1940	1941	Average (incl. 1936)
4 lbs. Super only	11. 2.0	7. 2.2	6. 8.3	10. 3.3	8. 3.3
do. plus 2 lbs. S/A	12.12.2	8. 6.1	7.18.2	12. 8.2	9.13.2
do. plus 4 lbs. S/A	12. 5.1	9. 1.0	7.18.2	14. 2.3	10. 3.0
do. plus 4 lbs. S/A plus 2 lbs. M/Potash	13. 0.1	8.18.2	7.19.2	13.10.2	10. 2.3

And results like these from **Sulphate of Ammonia** are supported by many successful orchardists—who regularly apply . . .

at least 3 lb. per tree for PEACHES;
more for APRICOTS;
and still more for PEARS.

Fuller particulars re Kyabram experiment from Chief Advisory Officer,
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H59/41

CANNED FRUIT NOTES—(Continued).

The following table of canned Pears processed in Australia for the 1941 season has been supplied by the Australian Canned Fruits Board:—

	No. 2½'s, Cases.	No. 1's, Cases.	No. 10's, Cases.	Total. Cases. Actual Number	Total. Cases, on basis 2 doz. 30 oz. cans per case.
Export Pack:					
Choice . . .	17,414	8,592	—	26,006	26,006
Standard .	441,133	105,007	464	546,604	546,546
Seconds . .	87,186	4,968	—	92,154	92,154
Domestic Pack . .	99,148	21,294	—	120,442	120,442
Total . . .	644,881	139,861	464	785,206	785,148

The following details refer to canned fruits exported to various destinations during the first four months of this year.

Summary.

Country.	Apricots. Cases.	Peaches. Cases.	Pears. Cases.	Fruit Salad. Cases.	Pine-apples. Cases.	Total. Cases.
U.K.	—	—	—	—	—	—
N.Z.	1,426	2,406	798	10	—	4,640
Canada . . .	2,323	6,194	1,379	271	13,664	23,831
East	17,903	76,405	62,965	1,617	3,264	162,154
Misc.	263	882	619	26	34	1,824
Total	21,915	85,887	65,761	1,924	16,962	192,449

CALCIUM SALTS USED IN CANNING.

Taking advantage of a simple chemical reaction whereby a jelly-like compound is formed when calcium chloride is added to pectic acid, Dr. Z. I. Kertesz, chemist at the State Experiment Station, Geneva, has demonstrated that this reaction can be used to good advantage in the canning of Tomatoes and possibly other vegetables and fruits to ensure that the product will retain its natural firmness during preservation.

"It is a matter of common knowledge that calcium has a hardening effect on plant tissues and considerable effort has been made in the canning industry to avoid the use of water containing undue amounts of calcium and magnesium because of the toughening of plant tissues," says Dr. Kertesz. "Even calcium applied as a fertilizer tends to toughen canned Peas, and sometimes the canner will soak his raw products in common salt solution to soften the tissues by exchanging the calcium and magnesium in the tissues with the sodium from the salt.

"However, it is often desirable to retain the natural structure of vegetables, particularly Tomatoes, in the canned product, hence this proposed method reverses the usual procedure and replaces sodium with calcium which, in turn, forms a gel-like compound with the pectic acid in the plant tissue and supports the cell structure during the destructive heating process. When treated in this way, Tomatoes will often 'roll out of the can' and stand up almost like fresh Tomatoes."

In addition to Tomatoes, experiments have been made with Apples, Peaches, Strawberries, and other products, with encouraging results. Because calcium is a natural constituent of all plant tissues, it is believed that there may be less objection to its use than if elements foreign to plants were to be used.

BEYOND HER KEN.

A physician attended an old lady from Scotland who had caught a severe cold.

"Did your teeth chatter when you felt the chill coming over you?" asked the doctor.

"I dinna ken, doctor; they were lying on the table!" was the pleasant reply.

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Science In Fruitgrowing

EXPERIENCES FROM VARIOUS PARTS OF THE WORLD.

Five New Peach Varieties — Pruning and Training Young Tomatoes — New Practices to Regulate the Fruit Crop — Pruning Young Apple Trees — Pollination Studies with Deciduous Fruit Trees — Substitute Spray Materials.

EXPERIENCES in the growing of fruit and vegetables are collated from reports received by the Imperial Bureau of Horticulture, E. Malling, Kent, England. These are published as Horticultural Abstracts. Hereunder we publish some of these interesting summaries:—

Five New Peach Varieties Especially Adapted to Mild Winters.

PARTIAL OR TOTAL CROP FAILURE often occurs in Peaches grown under conditions suitable for sub-tropical fruits, as the result of prolonged dormancy due to lack of sufficient chilling in the Winter. The chilling generally necessary is considered to be about 2 months' exposure to temperatures between 32 deg. and 48 deg. F. Such failures occurred 9 out of 15 years in California between 1924 and 1938.

Breeding work was started by Babcock at Whittier, Calif., in 1907, and aimed at better fruit characters combined with adaptation to warm Winters. After work in connection with the Citrus Experiment Station at Riverside first the Babcock Peach was evolved and later, after further work in which seedlings from the earlier work were used as well as several varities collected by the Division of Plant Exploration, from 1,000 seedlings which had now borne fruit, 5 were selected as promising for commercial planting on small scale. They are Rosy, Golden State, Ramona, Hermosa, and Sunglow.—(J. V. Lesley, in Bulletin Calif. Agric. Exp. Station.)

Pruning and Training Tomatoes in Manure Heated Frames in Russia.
Best When Trained to Three Stems.

COMPARATIVE TRIALS were made at the Otradnoye State Farm (Russia) of Tomatoes pruned and trained (1) to a single stem (control), (2) to two stems, (3) three stems, and (4) unpruned. Experiments, the object of which was to determine which of these forms gives the maximum early yields at the lowest cost, are described and results tabulated. The respective yields for the four sets were:—(1) 64.14 tons per hectare; (2) 68.42 tons per hectare; (3) 74.17 tons per hectare; and (4) 53.83 tons per hectare. Tomatoes trained to a single stem were found to be the most suitable form for cultivation in hothouses on account of early yield, comparatively cheap cost of production, and greater resistance to diseases. — (Markov, V., and Lalykin, N. S.)

New Practices to Regulate the Fruit Crop.

THE FIRST PRACTICE described is ringing or scoring at the time of full bloom. Experiments in Missouri show that it is nearly always beneficial to yield when carried out on branches of vigorous **Apple** trees. The bark removed should be $\frac{1}{8}$-$\frac{1}{4}$ in. wide, and the wound should be covered with grafting wax.

Scoring or knife edging may be as effective. This consists of cutting through the bark two or three times completely round the limb, the cuts being a few inches apart.

Pears and the **Royal Duke Cherry** have also been found to respond to ringing, but neither Peaches nor the Montmorency Cherry, which is normally a heavy bearer, responded. After ringing, the fruit is generally not only more numerous, but also larger and earlier ripening.

The second practice described is that of spraying with naphthalene acetamide .001 per cent. solution, or naphthaleneacetic acid .001 per cent. solution to prevent pre-harvest drop of Apples. The spray should be applied directly the dropping begins. If the period of dropping is much longer than 2 or 3 weeks a second application at half strength may be given. Spraying must be thorough.

Finally fruit setting can be prevented in the "on" year of biennially bearing varieties by destroying the bloom in the late cluster bud stage with a caustic spray. Creosote oil at 1½ per cent. concentration was found best, but cresylic acid at 1½ per cent. strength and good tar oil at 3 per cent. strength are also highly effective. — (Missouri, U.S.A., Exp. Station Bulletin.)

Pruning Young Apple Trees. Results of Experiments.

TRIAL AND OBSERVATION in Missouri indicate that although cutting back of young Apple trees at planting or during the first three years of growth may ordinarily not be justified, such treatment after trunk injuries due to rabbits, hail, etc., may be entirely satisfactory. It did not appear to affect the time of coming into bearing.

As regards pruning, the modified leader type of pruning dwarfs young trees slightly and delays bearing slightly in the early years, but produces a fairly low-spreading tree with many well-placed lateral branches. At the profitable bearing age of 10-12 years it will produce ample, high-quality fruit.

The open-head type of pruning needs severe cutting and may thus delay profitable bearing for as long as 2 years. The yield may also be reduced in the early years of bearing. The mechanical framework of trees treated is, moreover, not so strong as in the modified leader trees. It does, however, have the advantage of accessibility.—(T. J. Talbert, Missouri Agr. Exp. Station.)

Pollination Studies with Deciduous Fruit Trees.

POLLINATION STUDIES were carried out in Palestine with Plum varieties in 1934-35, with Apple and Pear varieties in 1935-39, in the interior valleys, and were begun in 1939 in the hill district. The investigations will be continued, but for practical reasons certain preliminary results have been published. They may be summarised as follows:—

1. The so-called Japanese Plum varieties (i.e., diploid types mostly derived from P. salicina and P. Simonii) behaved as they were found to do in California and for that reason the investigation was discontinued after two years. Self-sterility is very pronounced in all but three varieties, namely, Santa Rosa, Beauty, and Climax. The variety Kelsey is not satisfactory as a pollinator. Very early flowering hexaploid Plums can pollinate the diploid types successfully. Hexaploid, i.e., Domestica Plums, are not grown to any extent in Palestine, and were therefore not investigated.

2. Only one Apple variety—Rome Beauty—and no Pear variety is found to be self-fertile.

3. A number of Apple and Pear varieties show different degrees of self-fruitfulness. This ranges from the production of none, e.g., Delicious, or few parthenocarpic fruits to 100 per cent. fruitfulness, e.g., Canada Reinette.

4. There seems to be a relationship between climate and parthenocarpic fruit set. This relationship, which shows itself in differences between different localities and also between different years at any one place, is not yet fully proved. Investigations on the subject will be carried out and details of these should be available later.

5. Data on germination of Apple pollen agree with those from Europe, but Pear pollen germinates very badly at high temperatures. Under artificially constant conditions germination was 70 per cent. at 19-22 deg. C. and 24 per cent. at 28-30 deg. C. This low germination, however, does not impair the efficacy of cross pollination. In certain cases emasculation seemed to act as a stimulant to parthenocarpy, but with all but one Pear variety differences in set seem to be mere chance fluctuations.—(C. Oppenheimer, Hassadeh.)

Substitute Spray Materials.

IN HARMONY with results previously reported, nicotine-bentonite combination cover sprays beginning after the calyx spray with lead arsenate, were fully as effective as lead arsenate in controlling Codling Moth and producing clean fruit. The percentage of stings in 1939 on fruit from plots sprayed with nicotine-bentonite combinations was very greatly reduced under

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Dried Fruit News and Notes

N.S.W. DRIED FRUITS BOARD.

At the last general election of the N.S.W. Dried Fruits Board each of the sitting members was re-elected unopposed. Their term of office is for three years.

They are:—Chairman, Mr. C. J. Evatt; one member elected by growers of dried vine fruits whose holdings are situated within the Murrumbidgee Irrigation Areas, viz., Mr. E. J. Hudson, of Yenda; one member elected by growers of dried vine fruits whose holdings are situated within the State elsewhere than within the M.I.A., viz., Mr. L. B. O'Donnell, of Curlwaa; one member elected by growers of dried tree fruits whose holdings are situated within the Young District, viz., Major the Hon. Thomas Steele, M.L.C., of Young and Sydney; and one member elected by growers of dried tree fruits whose holdings are situated within the State elsewhere than within the Young District, viz., Mr. P. C. Cox, of Griffith.

Total production for 1940 was 11,283 tons, made up as follows:

Dried Vine Fruits.

	Tons.
Currants	1,509
Sultanas	7,389
Lexias	501
	9,399

Dried Tree Fruits.

Prunes	1,604
Peaches	87
Apricots	188
Nectarines	2
Pears	3
	1,884

Twenty-four packing houses were registered during the year, comprising eight in the Murrumbidgee Irrigation Areas; Sydney and suburbs, 6; Lower Murray River, 5; Young, 2; Goodnight, Albury, and Junee, 1. The packing houses are registered to treat the various varieties of dried fruits as follows:—All vine and tree fruits, 7; tree fruits only, 7; vine fruits only, 4; Prunes only, 4; Prunes and Sultanas only, 1; and Apricots and Peaches only, 1.

S.A. DRIED FRUITS BOARD.

At a recent meeting, the S.A. Dried Fruits Board discussed many matters of importance.

The Secretary reported that in connection with research work carried on in the non-irrigated areas, a letter was received from the Minister of Agriculture advising that the Research Officer, Mr. H. K. Kemp, B.Ag.Sc., had enlisted for military service, and that no request would be made by the Government for continuance of the subsidy for the salary of the Research Officer.

A complaint was received from the N.S.W. Dried Fruits Board in regard to irregular brandings on boxes included in consignments by three S.A. packing houses. The Secretary is communicating with the packing houses concerned.

The Principal of the Roseworthy Agricultural College (Dr. A. R. Callaghan) has agreed to forward results of his recent investigations in the matter of research work in connection with Sultanas and Lexias, together with samples.

The Export Control Board forwarded particulars of sales of 29,000 tons of dried fruit to the U.K. and 20,160 tons of dried fruit to Canada and N.Z.

An arrangement has now been made to enable packing houses to donate gifts of dried fruit to patriotic organisations.

SURPLUS DRIED FRUITS SOLD.

The Chairman of the Commonwealth Dried Fruits Export Control Board, Mr. W. C. F. Thomas, states that all the available surplus of the 1941 season's Currants, Sultanas, and Lexias have now been disposed of by the Commonwealth Government to the United Kingdom Government.

The quantity involved in the final sale is 4,070 tons, comprising 3,350 tons of Sultanas, 420 tons of Currants, and 300 tons of Lexias. This will make the total quantity of this season's surplus sold to the United Kingdom 33,070 tons, made up of 21,350 tons of Sultanas, 8,420 tons of Currants, and 3,300 tons of Lexias.

Sales to Canada and New Zealand during 1941 to the present date are: Canada, 2,583 tons of Currants, 15,509 tons of Sultanas, and 1,505 tons of Lexias—total, 19,597 tons; New Zealand, 730 tons of Currants, 4,566 tons of Sultanas, and 853 tons of Lexias—total, 6,149 tons.

These sales will absorb practically the whole of the exportable surplus of this season's pack.

(Continued from page 21.)

the number of stings on fruit from the plot sprayed with lead arsenate The addition of a spreader and sticker such as Summer oil, whole milk powder, and Vatsol O.T. increased the effectiveness of the nicotine-bentonite combinations. The addition of Floor Seal did not make for increased effectiveness of the spray, although it did increase the deposit and retention of nicotine on the fruit and foliage. The dry-mix method of preparing nicotine-bentonite preparations produced a product which gave no obvious and objectionable residue on the fruit. — (C. G. Vinson and McCrory, Missouri Agr. Exp. Station.)

WEST AUSTRALIAN NOTES.

(From Mr. J. McN. Martin, President of the W.A. Fruitgrowers' Association, Mt. Barker, W.A.)

THIS season in W.A. (as a fruitgrowing one) has been very difficult, taking the State as a whole. It is now several seasons since we have had our normal Winter rains and the sub-soil is, generally speaking, abnormally dry. The Summer we have just passed was making the State again very dry. The cumulative result in the fruit growing areas has been that a lot of the fruit is and has been on the small side, especially the early varieties. Later rains helped the late-mid and late varieties. Certain areas, however, had abnormal mid-March rains, particularly this district and further south to the west. The result has been on the average, and in these parts fruit has been well up to standard on the whole. Two areas in it were hit heavily by hail, unfortunately. Generally speaking, however, this part of the State has had a heavier crop than usual.

The quantity of marked fruit this season has been abnormally high, otherwise the fruit has been of good quality, and it is a sad sight to see first-class fruit with no market for it. One advance however, has been made. Quite a quantity has been sold for stock food, and it is remarkable how quickly some of our farming friends' sheep and pigs seem to have learned to differentiate between say Jonathan and Dunn's Seedling, and Rokewood and Yates, not to mention Granny Smith and Delicious, in fact, one must credit them with quite a human taste and intelligence.

Pruning will start any time now, but I am afraid the trees will suffer in this regard till the bulk of our young men return.

As to spraying, etc., fortunately, our Apples have not to be sprayed for black spot, and we are entirely free from codling moth, but it is a general practice to spray with oil early to advance the flowering to help dodge thrips. I am afraid, however, this spray will be more honored in the breach than the observance this year.

At present one could not wish to see a more beautiful sight than out countryside here, as the early rains have been followed by further falls, and feed is almost rank, in quite a contrast to last year. Unfortunately, this only applies to a restricted area in the south and south-west.

FRUIT BUYERS
LEMONS, ORANGES, GRAPEFRUIT, PEARS, PEACHES, APRICOTS, BERRIES, CHERRIES.
BROOKE'S LEMOS LTD.
69-79 WHITEMAN STREET, MELBOURNE SOUTH, S.C.5.
— Telephone, M 3141. —

Citrus News and Notes

Citrus Crop in N.S.W.

Generally, the citrus crop position in N.S.W. has been maintained. The Navel crop in most areas is medium, but the fruit generally is of large size and attractive in appearance. Picking is in full swing.

Medium to good crops of Common Oranges are to be seen in many localities, and marketing is taking place.

In Maitland, Navels are rather light on old trees; young trees are carrying better crops. Valencias are light to medium, but Common Oranges are very patchy. Emperor Mandarins are good in the Branxton locality. Crops of Lemons generally are good through this district.

In Wyong, excellent quality Navels are going forward from the Dooralong area; Valencias vary in size. Sevilles are sizing and coloring satisfactorily. Mandarins are light, but the fruit is coloring well. A good crop of Lemons is developing, and a medium crop of Grapefruit.

Gosford: Navel crop better than previously anticipated. Prospects for Valencias are being maintained. Mandarins are sizing reasonably well. Lemons appear to be heavier than was at first anticipated around Terrigal.

In the Hawkesbury River districts, Navel crops are not very heavy, but large sizes predominate, and the sugar content is satisfactory. Moderate crops of Valencias are apparent. Joppas and Parramattas are well cropped. Lemons are variable in size. Wheeny Grapefruit show medium to heavy crops.

Windsor: Large consignments of Navels are now going forward. The quality in the main, is good. Valencias need rain in many groves. In the irrigation areas, the fruit is developing well and fine crops are to be seen. Some splendid-quality Mandarins of large size are going forward. Harvesting of Lemons is proceeding, and the trees have recovered well from the long dry spell. Grapefruit are light and premature coloring is noticeable.

In the Kurrajong-Emu Plains districts reports indicate that calm and dry weather has prevailed recently. Owing to the lack of adequate rain much of the fruit is not sizing normally, especially Mandarins. Navels for the most part are coloring, and marketing has commenced. Valencias are medium to good. Size is lacking in many Common Oranges. Mandarins lack development. Lemon trees are well-cropped but the fruit is small. Grapefruit is being marketed.

Odd light showers were recorded in the Hills districts during the month. Navels are light but the fruit is of good size. There is a fairly good crop of Valencias and the fruit is sizing well. Lemons also are chiefly of good size and quality, and the fruit is now being harvested. There is a light crop of Mandarins. Red Scale is prevalent in some areas.

In the Parramatta-Camden district, the bulk of the small area planted to Navels has been marketed. The fruit was clean and of large size. Valencias very light. Mandarins vary in size, and color is lacking. Colored Lemons are plentiful in groves. Red Scale is on the increase.

Narromine: Conditions in the districts were dry until early June, when over an inch of rain fell. Navels are now being harvested; quality good but sizes somewhat large. Valencias look particularly well, but here, too, sizes will be excessive. Lemons are heavily cropped, and the quality is most satisfactory. Grapefruit quality is good, although some skin blemishes are apparent.

In Dubbo, the dry weather has affected the size and quality, the fruit having little juice. Navels are light and quality poor, except in the irrigated areas. Good rains in early June should prove beneficial to Valencias and Common Oranges. Lemons are expected to be poor this season.

Forbes: Navels are clean and of very good quality. Marketing has been in progress for the past month.

In the Murrumbidgee Irrigation Area only moderate crops of Navels are to be seen around Leeton. The fruit, however, is large and well colored. There are some good crops of Valencias, and some excellent crops of Lemons. Grapefruit, fair to good, and a few quality lines being harvested.

The district of Griffith reports that Navels have matured earlier than usual. The crop is light. Exports to N.Z. already approximate a few thousand cases. Valencias are also light, but the fruit should be of good quality. There are fairly heavy crops of Lemons.

Navels generally are light throughout the Yenda district. The fruit is evenly colored. Valencias generally are regarded as being fairly good. There is a good showing of Mediterranean Sweets, Sevilles and Mandarins, but the area under these citrus fruits is limited. Some shipments of Lemons have recently been made to N.Z.

The prospective crop figures in S.A. are as follow:—Navels,

ARE YOU GRUBBING?
Previous experience had convinced me that to be really efficient a grubbing machine should have ample power and ropes that will meet the heavy demands required of them. I found that shovel and axe work is very costly either by itself or in conjunction with a machine. The machine that offered these features with a host of others, was THE "MONKEY" GRUBBER.
It gave me the power of 260 pairs of hands in a simple and compact form; the lever is short, so that I am able to stand firm-footed and get the full stroke. There are two speeds in the machine, as well as an automatic release that allows me to let off a strain, or as the machine will work in any position, it comes in for all jobs that would require a chain block. It is taken to the job on a pair of wheels like a barn truck, and is rigged for work in a few minutes. The ropes are in lengths that I find easy to handle, and each one is fitted with hook and loop couplings, so simple and absolutely IT for effectiveness. The makers have included a sturdy snatch block with a novel method of securing to the ropes, and also a fine type of firm gripping rope shortener. The latter makes it very easy to accommodate the lengths of rope to the tree or stump being pulled, and is quickly released from the rope. The combination of so many time and labor saving features makes the "Monkey" Grubber a superior grubbing outfit.
REMEMBER FOR YOUR GRUBBING THERE'S ONLY
TREWHELLA'S

MONKEY GRUBBER
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A. G. WEBSTER, & SONS, Hobart & Launceston.
REX ROBINSON, 83 Gipps Street, Brisbane.
Leading Stores and Merchants, South and West Australia.
TREWHELLA BROS. Pty. Ltd. Trentham, Vic.

388,628 bushels; Valencias, 51,900; other seed-bearing, 51,162; Mandarins, 7,650; Grapefruit, 8,200; Lemons, 26,175; other citrus, 300. Total, 534,015 bushels.

REPLACING CITRUS TREES.

Very often when an orchard tree dies or is taken out for any reason, the owner has trouble in getting the replant to thrive.

Before setting a young tree for replacement, dig a hole about three feet deep and at least eight feet in diameter. The top soil and subsoil is piled far enough from the hole so that irrigation does not wash any of it back. The hole is left open for a year to sterilize and let the sun bake the soil and dry it out thoroughly. Water is kept away from the hole during this period. After the opening has been subjected to the high temperatures of the Summer sun and before the last irrigation in the fall, new soil is placed in hole to fill it within six inches of the top. The dirt is settled with the irrigation and then more new soil added. Winter rains settle this upper layer and the next Spring when the young tree is planted, it will grow vigorously. This system has been successfully used in old groves of both Oranges and Grapefruit. However, this method does not eliminate the necessity of careful attention to the details of fertilization, irrigation, and other cultural practices normally given to young trees.

SUGAR REBATE FOR JULY.

The Export Sugar Committee, Canberra, A.C.T., has decided to fix export sugar rebate for the month of July, 1941, as under:—

	Per Ton. £ s. d.
New Zealand:	
Fruit Products	0 9 0
Other Goods	2 13 0
Other Destination:	
Fruit Products	10 16 0
Other Goods	13 0 0

"A hen is really a very proud bird," states a poultry expert. It should be with eggs at their present price.

Producers' Co-operative Distributing Society Ltd.

Are now paying a Bonus of 15% on all Commissions charged to regular clients of the Fruit & Vegetable Section for year ending Sept., 1938

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MELBOURNE & SYDNEY.

A Five Crown Apple trained to the shape of a vase or goblet.

HOW TO GROW FRUIT TREES BY THE ESPALIER METHOD.

The Second Edition of the helpful and interesting book, "How to Grow Fruit Trees by the Espalier Method," has just been published, wherein the author, Mr. Alan Edmunds, describes in detail how to obtain success in growing Apples, Pears, Plums, Apricots, Peaches, Nectarines, etc., by the Espalier method. The charming decorative effects which can be obtained by following the various designs suggested by the author will appeal to readers, but in addition to their decorative effect, Espaliers are outstanding for fruitfulness, and solve the problem of those persons who have not room to grow the usual type of fruit trees, as Espaliers are ideal for covering fences, growing against walls, etc.

Illustrations are included throughout showing various designs and the charming effects obtained, also diagrams are included which are most helpful in the training of Espaliers. Pruning for fruit and spraying hints are sections of this book which will be found of considerable interest and assistance in producing an abundance of quality fruit.

The price of "How to Grow Fruit Trees by the Espalier Method" is 1/-, and copies may be obtained from the publishers, the Horticultural Press Pty. Ltd., Box 1944, G.P.O., Melbourne, C.1.

PUBLICITY AND PRICES AFFECT FRUIT CONSUMPTION.

The continued effect of publicity and lowered prices is quoted by Orr and Lubbock in "Feeding the People in War-Time." They state that in England in 1900 Bananas were sold at 2d. each, but in 1937 the price had fallen to 1d., and the consumption rose from 2½ million bunches to 20 million bunches annually in that period. Similarly, the price of Grapefruit in 1920 was 6d. By 1935 it was 3d., and the consumption rose from 1,200 tons to 59,500 tons in the 15 years.

They add that the fall in price was accompanied by eat-more-fruit campaigns which doubtless were responsible, to an extent, for the increased consumption. It can be taken as a general rule that as prices fall consumption expands and moves towards the poorer classes. Propaganda upon the lines of the nutritional value of foods is now followed by increased consumption.

The Federal Potato Advisory Committee, at a recent meeting in Brisbane, Queensland, agreed upon a scheme for the orderly marketing of the heavy Australian 1941 Potato crop, estimated at between 360,000 and 400,000 tons. The scheme will be referred for the Commonwealth Government's consideration.

City Fruit Markets Sydney N.S.W.

Licensed Farm Produce Agent

F. CHILTON

Fruit Commission Agent

ESTABLISHED 1894

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References:—Bank of N.S.W., Haymarket, Sydney. and Growers throughout Australia.

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References: Bank of New South Wales.
Shipping Numbers on Application.

N&A

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PHONES:
Newcastle: B 3444 — Sydney: MA 8428

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Market Notes and Prices

QUEENSLAND AND NORTHERN N.S.W.

The **Banana** market has been reasonably firm, with supplies showing a decrease during June, owing to the colder weather. Supplies on the whole, however, have been heavier than last year.

Supplies of **Pineapples** have been very even during the month, and prices showed little alteration until the last week, when, owing to the colder weather, the range was easier.

Moderate supplies of **Papaws** were received, and a good demand existed for quality fruit.

Small supplies of **Passionfruit** were received from Queensland and N.S.W. in the early part of the month; N.S.W. consignments were heavier during the past week, when prices showed a decline.

Mandarins: Heavy supplies of Emperors were received from Queensland, and good prices maintained throughout, despite the heavy competition of N.S.W. Emperors.

Small supplies of **Cucumbers** came forward, but the demand was slight, owing to cold weather.

Custard Apples were in good demand and prices firm.

Beans: Heavy supplies of Beans were received from Queensland and Northern N.S.W., and owing to the shortage of vegetables here, the market was very firm, and high prices were received.

FRUIT AND VEGETABLES IN SYDNEY.

Fairly large consignments of Apples were received in Sydney throughout the month, Tasmanian Jonathans predominating. There were also plentiful supplies of Delicious, and Tasmanian Cleos. Stocks of Granny Smiths were somewhat short.

Green vegetables were high in price. If it were not for the supplies of beans and peas from the North Coast and Queensland, agents said, the Sydney market would be almost bare of green vegetables.

Potatoes and pumpkins were in good supply, and were the cheapest vegetables on the market.

FRUIT INDUSTRY AWARD.

During June, Judge O'Mara agreed to call a conference to discuss a proposal by the A.W.U. that 900 additional fruitgrowers should be brought under the fruit industry award.

When Judge O'Mara said he would not commit the Federal Government to the expense of conferences to save the unions from proceeding in Court, the assistant secretary of the A.W.U. said that a conference would save serving claims on 900 growers.

MARKETS INDUSTRIES (N.S.W.) WAR FUND.

The members of the Sydney Municipal Markets community continue to give wholehearted support to the Markets War Fund. To date over £10,600 has been collected, including an amount of £2,400 for the purchase of War Savings Certificates.

An energetic Committee representing all sections of the Market industry, with Mr. C. C. Greentree as Chairman, devote much of their time to furthering the effort, while the Ladies' Committee, stimulated by their enthusiastic Secretary, Miss V. Read, consistently swell the funds with the proceeds from parties, balls and competitions.

In addition a special Sub-Committee has raised over £800, which has been distributed amongst dependents of enlisted men from the Markets.

The fruit stall in Martin-place, conducted by the Fund Committee, has raised £950, and £450 was subscribed in one hour at a rally held a few days ago in the Market, 50 per cent. of the proceeds being given to the Fund for a mobile canteen for Britain.

Mr. C. Cooper, fruit agent, and a member of the Committee, has this week given a radio, cutlery set and radiator as prizes for a competition which it is hoped will raise £250 for the funds.

The Sydney fruit and vegetable trade is to be congratulated on its consistent effort. Their example is worthy of emulation.

AMONG THE SYDNEY TRADE

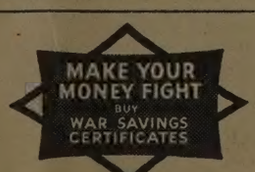
A successful Dragon Ball was held at Sydney in mid-June to raise funds for the Young Chinese Relief Movement. Several charming debutantes were presented. Many folk heard for the first time the Chinese National Anthem, the music of which is sweet and tuneful.

The patroness was Madame C. J. Pao; organising executives: Messrs. Percy Yan (of Yocksui Bros.), D. Y. Narme, W. G. Lowe, A. J. Kelly, J. H. Facey, and W. A. Gibbs.

:: ::

The Markets Ball is the big social function of the year and is eagerly looked forward to by members of the fruit and vegetable trade of Sydney. This year the event will be held on July 18.

On such an occasion the cares resulting from the price of cauliflowers and the operations of the Apple and Pear Board are forgotten. The war funds will benefit as usual.



VICTORIA.

Melbourne (2/7/41): Slow demand for fruit, high cost of vegetables having some effect on demand. (Quotations bushel case, unless stated):—Apples, eating 6/- to 8/-, few special higher, cooking 4/6 to 7/-, few special Granny Smiths higher; Oranges, Navel 5/- to 12/-, according to counts, few specially selected higher; Lemons, average standards 7/- to 9/-, good standards to 11/-, selected to 12/-, few special higher; Grapefruit, 6/- to 12/-, few specially selected higher; Mandarins, 6/- to 13/-, few specially selected higher; Pears, dessert 7/- to 10/-, culinary 4/6 to 7/6; Papaws, Q'land., 10/- to 16/- double case; Bananas, Q'land. (green), 6's 14/- to 18/-, 7's 18/- to 21/-; 8's and 9's 21/- to 22/- double case, few special higher; Pineapples, Q'land., 8/- to 12/- double case, few higher; Passionfruit, 6/- to 12/- half case.

SOUTH AUSTRALIA.

Adelaide (1/7/41): The following notes and prices are supplied by the S.A. Fruitgrowers' and Market Gardeners' Association Incorp.

Vegetables had a steady demand on Monday's markets, and although quotes were mainly unchanged, greater available supplies in some lines may result in cheaper quotes. Few Beans were obtainable, and the Pea quote was lower.

No alterations were made to fruit quotes and a steady demand prevailed.

SHELTER BELTS
Around HOMESTEADS and in loose WINDSWEPT PADDOCKS
RADIATA PINE
is an ideal shelter tree, being densely branched to the ground. On the boundaries of ORCHARDS a belt of one line of pines is a great protection in exposed situations.
WHEN TO PLANT ? — NOW
Trees from nursery stock must be planted out NOT Later than September.
PLANT IN TWO OR THREE ROWS 12 TO 15 FEET APART.
STRONG SEEDLINGS ARE OFFERED TO LANDOWNERS:—
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£3-2-6 per 500
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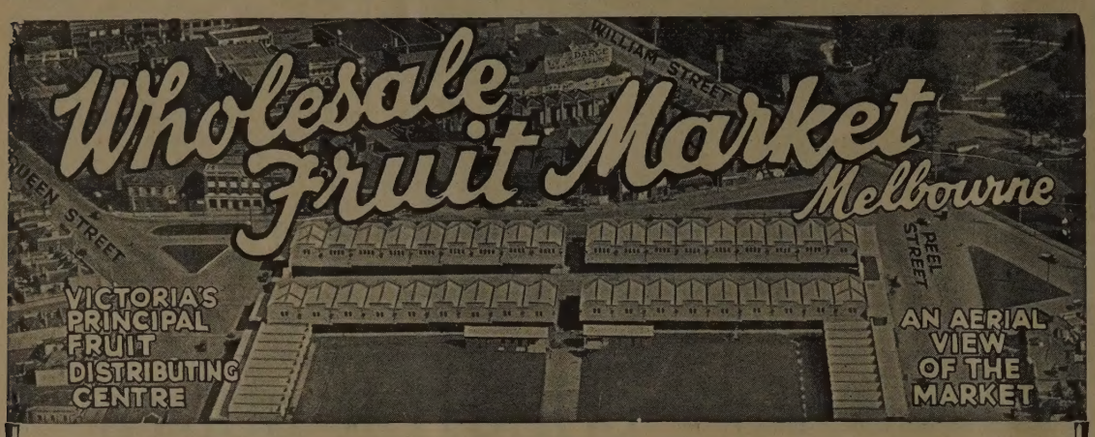
Established 1888. Registered Telegraphic Address: "Barr, Brisbane."

W. Arkell & Sons Estab. 1892
BRISBANE, B.12. GROWERS' AGENTS.
Shipping No. 12
Bankers: National Bank of Australasia, George St., Brisbane.

The undermentioned quotes are for f.a.q.

Vegetables: Beans (French), 12/- doz. lbs.; Beetroot, 1/6 doz; Brussels Sprouts, 6/- doz. lbs.; Cabbages, 3/6 to 7/- doz.; Carrots, 3/- doz. bchs.; Cauliflowers (large), 8/-, 10/- doz.; Celery, 3/-, specials 3/6 doz. heads; Leeks, 2/- doz.; Lettuces, 2/- doz.; Onions (Brown), 12/- cwt.; Parsnips, 2/-, 2/6 doz. bchs.; Peas, 16/- bushel; Potatoes, 5/- cwt.; Rhubarb, 1/6 to 2/- doz. lbs.; Tomatoes (outside), 10/-, 12/-, (glasshouse), 16/-, 17/-; Turnips, 2/- doz. bchs.; Swede, 2/6 doz. bchs.; Triambles, 6/- cwt,

Fruit: Oranges — Mandarin, 10/-, 12/- case; Navel, 75-84 6/-, 96 6/6, 118 7/6, 126 8/-, over 126 8/6; Grapefruit, 8/-, 10/-; Lemons (colored), 7/-, 8/- case; Bananas, 22/-, 24/- crate; Pineapples, 15/-, 18/- crate.



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Australia looks to you to produce and sell good fruit, but to **PRODUCE GOOD FRUIT** and have it badly sold is a reflection on your business ability. To sell well is as important as to produce well. The greatest combination that can exist beneficially is that between a painstaking fruitgrower and a painstaking salesman.

If you have good fruit to market, you will find in the firm of **GEORGE LISTER PTY. LTD.** the service you require. Established over 50 Years.

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Consignments Solicited from all States.
Growers Will Receive Top Market Value and Prompt Returns.
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FEEDING OF PIGS

Value of Skim Milk and Butter Milk.

In supplementary value, skim and butter milk excel any other single feed for pigs. They are especially recommended for pigs just weaned, as they are very palatable and digestible; they usually contain between 3 and 4 per cent. protein, which supplements well the proteins of farm grains. Skim milk and butter milk are also rich in essential mineral elements.

Their high value is shown by the fact that roughly 100 lb. can be considered worth half as much as a bushel of Maize.

While these feeding stuffs are of equal value for pigs, precautions must be taken to see that the butter milk has not been diluted by the wash water. Both should be pasteurised or boiled in order to prevent the possibility of tuberculosis.

When these by-products are fed in small amounts they have a higher value per lb. than when they form a large proportion of the ration. Young pigs require larger proportions of milk to grain than do older pigs. It will be found that about 1 gallon of skim or butter milk per day will balance a Maize ration for pigs from weaning age to market weights. During the period of rapid growth (between 90 and 130 lb.) $1\frac{1}{2}$ to $1\frac{3}{4}$ gallons may very profitably be utilised.

Whey has a value of approximately half that of skim milk or butter milk.

The pamphlet "Feeding of Pigs," from which the foregoing paragraphs are taken, is one of a number of publications on pig raising obtainable free on application to the Department of Agriculture, Box 36A, G.P.O., Sydney.

"Daddy," said little Johnny, looking up from his book, "what are diplomatic relations?"

"My boy," said his father sadly, "there aren't any."

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Poultry Notes

FOR MOULTING BIRDS.

A little extra care is essential if the hens which are coming through the moult after a heavy season of laying are to retain their stamina and come into profitable production again speedily. The growth of feathers, running into thousands on a hen, is a very heavy strain on the constitution, particularly after she has laid between two and three hundred eggs, even under the best of care and correct feeding; it is, naturally, much greater if the hen is not supplied with an adequate supply of feather-growing food and minerals. Sulphur is a most useful ingredient for moulting hens. Hemp seed, linseed, and other seeds of an oily nature are invaluable for moulting hens. Mash mixed with buttermilk is also very strengthening, besides providing suitable feather-forming nourishment.

Hens which show the effects of a severe constitutional strain in the process of moulting might be passed out in the culling process, unless there be some special reason for retaining them.

BUMBLEFOOT.

Various causes effect this condition. Bumblefoot shows in a swelling or abscess in the foot. It can be caused by a small wound getting infected and setting up a septic condition following scratching in hedges or stony ground or even coarse litter, thistles or other sharp material. Another cause can be jumping off high perches on to hard ground, causing a bruise on the pad of the feet.

When bumblefoot is noticed, the bird's foot should be bathed in hot water, a ligature tied tightly around the leg and the swelling lanced deeply to get out the core. Then the wound should be washed with Jeyes fluid or other disinfectant, smeared with an antiseptic ointment and bandaged tightly, afterwards removing the ligature from the leg. If a good response is not seen, the operation should be repeated.

SOAKED WHEAT FOR FEED.

The Executive Council of the N.S.W. Poultry Farmers' Association has advised its members to adopt the soaked wheat method of feeding, except during hatching. This is because of uncertainty regarding mill offal supplies.

Advice on soaked wheat has been published by the N.S.W. Department of Agriculture, and methods of feeding are discussed in the Guide Book published recently by the Poultry Farmers' Association.

Motor Notes

GREASING THE CAR.

GREASING the car or truck is one of the most objectionable jobs of the driver, and modern high-pressure grease guns greatly help out. For the finnicky or lazy driver, garages will do the job at a small cost, but for the driver who prefers to do the greasing himself, the following hints will be found helpful.

Jack up the front wheels when greasing the king pins. This allows the grease to flow under the thrust bearing which normally is heavily loaded, and so does not receive the copious lubrication which it needs.

Work the steering from lock to lock to distribute the grease evenly. If difficulty be experienced in forcing grease into running-gear bearings, such as the spring shackle-pins, the services of some person handy should be secured to rock the car while pressure is being applied with the grease gun. This will usually enable the grease to be forced through. Should this fail, however, the power-greasing equipment at an up-to-date service station will usually develop sufficient pressure to break down the obstruction without need for dismantling the bearing to clean out the oilways.

Some types of oil-nipples occasionally fail through the ball-valve sticking. Screw out the nipple and free the ball by pressing with a nail or similar point. Then wash out any dirt with petrol or kerosene.

WHEN GEARS SLIP OUT.

Trouble with gears slipping out of engagement can usually be overcome by some change in the gear-locking mechanism. This may consist of strengthening the springs, replacing the whole locking pin or by cutting deeper grooves in the parts into which the pin fits. With deeper grooves, the driver may find some annoyance due to the stiffer action when shifting gear at first, but he will soon become accustomed to it.

Burglars recently broke into the home of Kaye Don, the famous English motor-racing expert, and stole his petrol ration tickets.

PRODUCER GAS.

Many primary producers' associations in N.S.W. are making efforts to induce the Government to organise the manufacture of producer gas units on such a basis that they could be supplied to farmers and essential industries at a percentage-on-cost price.

It is considered that with mass production, plants could be turned out at less than £30 each.

The Graziers' Association has stressed the belief that only by some action on the part of the Government to arrange for the sale for cash or on terms (on a low deposit), of producer gas units, will the substitution of producer gas for petrol engines come about with the speed necessary to enable industry to carry on while petrol is restricted.

UNDER-INFLATED TYRES.

Under-inflation of tyres causes more strain on the engine and greater petrol consumption, and this should be known so that as great a mileage as possible can be obtained under petrol restrictions. Illustrating this fact it is pointed out that a 20 per cent. under-inflation increases petrol consumption about 12 per cent. on most cars, while a 30 per cent. under-inflation will increase consumption by 23 per cent. See that your tyres are fully inflated to the amount advised by the makers.

SLIPPING CLUTCH.

If the clutch slips it should be attended to at once, as it becomes an immediate danger apart from being wasteful of fuel and a constant anxiety and annoyance. Wear is the usual cause, and it is not a big job to check over where the cause comes from and to rectify it by making the necessary adjustments. The pedal should be able to be depressed well down before starting to disengage the clutch. After all, declutching or changing gears is a quick job, and the driver should know that everything is in order.

VICTORIAN YOUNG FARMERS' CLUBS ASSOCIATION.

DURING June, interesting projects were discussed at this year's School of Agriculture organised by the Victorian Young Farmers' Clubs Association.

To assist in the development of the work in other schools the children at Grahamvale have prepared notes on their plan of work with the co-operation of their teacher, Mr. E. J. Vanston.

When Mr. B. Hermann, of the Murtoa Agricultural Society, was at the Bairnsdale Convention of the Chamber of Agriculture, he was very impressed with the display made by the Victorian Young Farmers' Clubs Association. He spent much time among the Young Farmers, and invited Mr. Hedley Jones, a Supervisor of the Association, to talk with members of the Murtoa Senior Young Farmers, a band of farmers who are intent on farm improvement, particularly through the medium of crop and fallow competitions. After the meeting it was decided to give keen support to the Junior Club at the School, so that when the members—particularly the boys—left school they would be encouraged, while well equipped, to join the senior ranks.

Project work is being featured at the Kiata Young Farmers' Club, with the new teacher, Mr. I. Hess, taking the lead. He has the members divided into groups of four, growing Strawberries, Onions, Peas, and Carrots.

Officers of the Department of Agriculture have completed the sowing of experimental Wheat plots on the farm of Mr. W. O'Connor, of Charlton, one of the district's most progressive farmers. He has expressed the hope that the Young Farmers, in whose development he is keenly interested, will take full advantage of what will be seen on his property.

The June meeting of the Ballendella Young Farmers' Club was devoted to the young women. Members are being taught how to smock.

Farmer Hawkins was complaining to his wife that he could find no old clothes to put on the scarecrow.

"Well," she said helpfully, "there's that flashy suit son wore at college last year."

"Yeah, but I want to scare the crows, not make 'em laugh."

— SPECIAL NOTICE TO FRUITGROWERS —

In response to numerous requests from growers for information as to who are members of the WHOLESALE FRUIT MERCHANTS' ASSOCIATION OF VICTORIA, the following list is given. All are members of the above Association, and are registered firms carrying on business in the WHOLESALE FRUIT MARKET, MELBOURNE. (All Members under Fidelity Bond)

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Correspondence is invited by the Association.

Office: 21 Wholesale Fruit Market, Queen St., Melbourne, Phone: F 4866.

Tasmanian News and Notes

(By Our Correspondent.)

THE main climatic features this Autumn in both the north and south were the extremes of temperature and a long dry spell, broken temporarily midway, then continuing right through till mid-June. This had a very bad effect on the growth of the later-maturing varieties, which picked much below expectations.

Pruning in the north of the State is well under way, and many growers in the south are making a start. Those who bandage for moth have mostly removed the bandages and the destruction of the grubs has been heavier than usual. Picking, of course, is now completed, although it hung on longer than usual owing to the fact that growers were not allowed to pick at their own discretion but had to wait until they received definite instructions to do so. This caused congestion at the end of the season, as there was an accumulation of mid-season fruit on the trees, as well as the late varieties. This, coupled with the shortage of labor, put the growers in an awkward position.

Up to date the Sydney market seems to be getting all the fruit it can absorb, and the various factories have so far been unable to cope with the amount of fruit available. Both canneries and drying factories will work as late into the season as the fruit remains fit for their purposes, as large orders have been received for the fighting forces.

The Parliamentary Select Committee has come, taken evidence, and departed to take more evidence elsewhere.

In Tasmania there seemed to be preponderance of opinion that the administration was faulty. I admit it is difficult to be absolutely unbiassed, but it seems to me that the administrators are sometimes blamed for circumstances over which they have little or no control, such as uncertainty of shipping facilities calling for hurried deliveries, or a carry over, while the Committee or Board seem rather apt to blame the grower when things do not work out right. Conditions on the mainland are probably different, each State having its own problems.

There seems to be a general feeling that the Sydney market is not run very efficiently, and there are many complaints of abnormally slow deliveries from the wharf to the agents, resulting in deterioration of the fruit, especially Pears. Tasmania was adversely affected in this way, judging by reports I have received.

"Gadabout" draws attention to a suggestion to change compulsory acquisition to a voluntary scheme under which the grower sells to the pool or decides to sell it himself. This might be all right in individual cases, but as an all Australian scheme I am afraid it would not be workable.

Another suggestion is that a lower compensation should be paid on certain varieties not wanted on the Australian market, on condition that they are cut off about blossoming time, i.e., before full cost of production has been incurred, and so reduce the quantity available for the market, increase the demand, and decrease the loss. It does not seem good business to incur expense in producing a lot of fruit that cannot be used.

June 23, 1941.

FLAX-GROWING IN TASMANIA.

Much interest is being taken in Flax-growing throughout the Branxholm (Tas.) district, and at a recent meeting of the Tasmanian Producers' Organisation, Mr. R. W. Wilson, Senior Agriculture Officer, stated that it was likely that a receiving depot would be established in the municipality if a guarantee of 500 acres or more were forthcoming. Already over 600 acres have been promised.

In the recent list of Honors, **Mr. Claude Ernest Weymouth James,** Agent-General for Tasmania in London since 1937, was created Knight Bachelor.

Sir Claude entered Parliamentary life in 1925 in the House of Assembly as one of the members of Bass, and was re-elected for that Constituency in 1928, 1931, and 1934. He was Chief Secretary and Minister for Railways and Mines in the McPhee Ministry from 1928 to 1934. He was a member of the Masonic Craft in Tasmania for 30 years, and was Grand Master of Tasmania.

NATURAL.

Everything about the aerodrome was interesting to the American visitor, who asked a never-ending string of questions.

"Say," he exclaimed at last, "how is it you have so many Scotsmen among your flyers?"

The officer who was showing him round snatched at the chance. "You see," he said, "since the Scots have learned that every cloud has a silver lining we can't keep them out."

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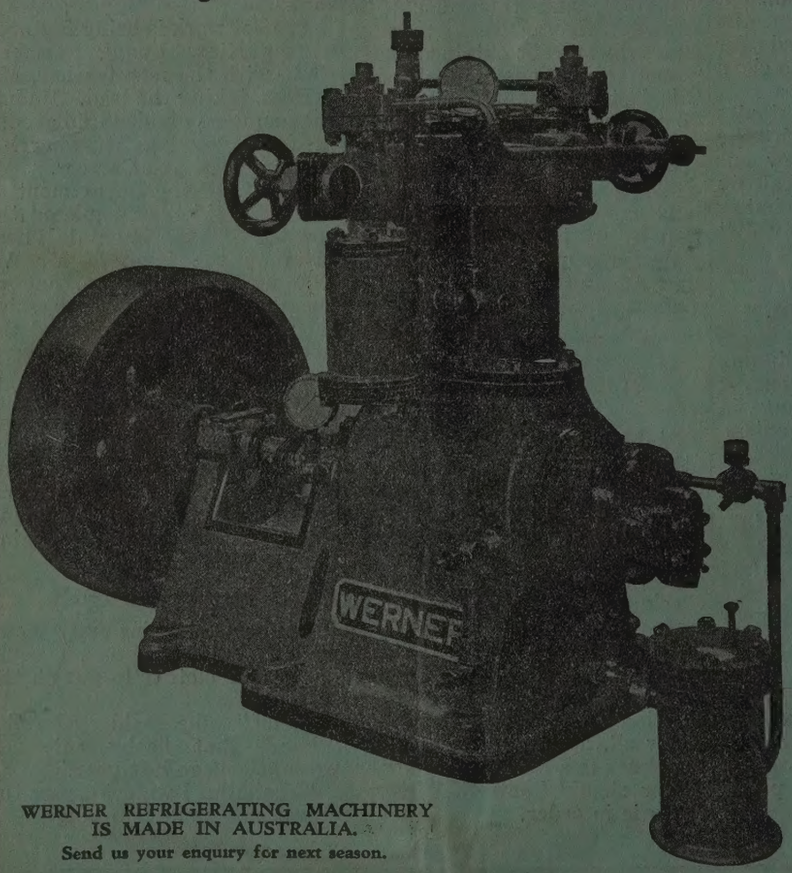

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